



ANNALS
OF THE
SOUTH AFRICAN MUSEUM.

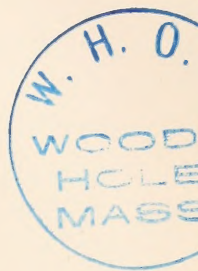
VOLUME III.

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VOLUME III



PRINTED FOR THE

TRUSTEES OF THE SOUTH AFRICAN MUSEUM

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TRUSTEES OF THE SOUTH AFRICAN MUSEUM.

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ANNALS

OF THE

SOUTH AFRICAN MUSEUM.

- 1.—*Descriptions of New Genera and Species of South African Solpugidæ*, with 8 text figures.—By W. F. PURCELL, Ph.D.,
First Assistant.

THE present paper contains descriptions of a new *Solpuga*, a new *Blossia*, and 3 new genera of the family *Solpugidæ*. Two of the new genera are remarkable on account of the apparent absence of a flagellum on the chelicerae of the adult male, a character not hitherto found in any South African form and known only in the North American genus *Eremobates*.

As it is of the greatest importance to ascertain the maturity and sex of a specimen, when identifying it, it may be advisable to point out clearly the important sexual differences presented by the structure of the first abdominal sternite. All the South African forms in the Collection (including all known South African genera) were examined, and it was found that adult specimens could always be readily distinguished from immature specimens and the sex ascertained with certainty, quite independently of the presence of a flagellum. The sex of immature forms, although not usually required, can also be ascertained, at least in older individuals, but less readily than in the adult.

Adult male.—The sternite or hardened cuticula of the ventral surface of the first abdominal segment is composed of a right and left half joined together along the median line by soft skin. The sexual opening is a median longitudinal slit situated near the middle of the sternite in a convexly raised, spindle-shaped, oval or even

circular area, which it divides into a right and left half, each half being formed of a piece of hardened cuticula (genital sclerite), movably articulated with the adjacent half-sternite by means of a strip of soft skin. This soft skin bears no hairs and is usually sunken in, forming a curved groove. It is characteristic of the adult male that the oval or circular area is always large, generally about half as long as the sternite itself, but sometimes longer.*

In immature males a similar pair of genital sclerites occurs, but they are much smaller, being only $\frac{1}{3}$ – $\frac{1}{4}$ of the sternite in length.

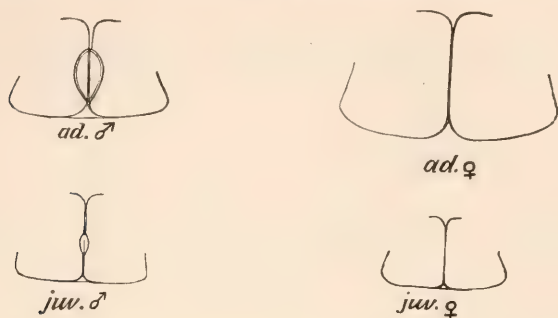


FIG. 1.—First abdominal sternite of various specimens of *Solpuga venator*, Poc. ($\times 3$ times), all from the same locality (Dunbrody).

Adult female.—In the adult female the genital sclerites are absent and the sternite is generally deeply grooved along the median line. The sexual opening is very large and conspicuous, being situated in the soft skin under the posterior region of the sternite, and of course not visible until this is lifted. Moreover, the hind margin of the segment is cleft or emarginated, generally strongly so, in the middle, the hind median angles of the half-sternites not being united by soft skin quite up to the hind end. The depth of this emargination or incision, as well as the shape of the sexual opening, varies considerably in the different species, and may be used as a specific or group character.

The immature female may be recognised from the immature male by the absence of the genital sclerites and from the adult female by the absence of a large and conspicuous sexual opening and generally also by the absence of the posterior median incision.

* In the species which were more closely examined (*S. venator*, *S. hostilis*) the hairs on the genital sclerites are pointed and differ from the majority of the hairs on the rest of the sternite, which are mostly conspicuously forked at the apex.

SUB-FAMILY SOLPUGINÆ.

GEN. SOLPUGA.

SOLPUGA COLLINITA, n. sp.

Type.—1 ♂ (No. 9764) found by Dr. H. Brauns at Willowmore, Cape Colony, in a house at night, in December, 1901.

♂. Very closely allied to *S. cervina*, Purc. (Ann. S. A. Mus., v. 1, p. 415, 1899), but distinctly differing in the structure of the apex of the flagellum.

Head-plate as in *cervina*, but more thickly covered all over with long hairs and bristles; the ocular tubercle with about 10 conspicuous setæ on anterior surface, besides a few, fine, short setæ and hairs.

Chelicerae as in *cervina*; the distal tooth of upper jaw somewhat

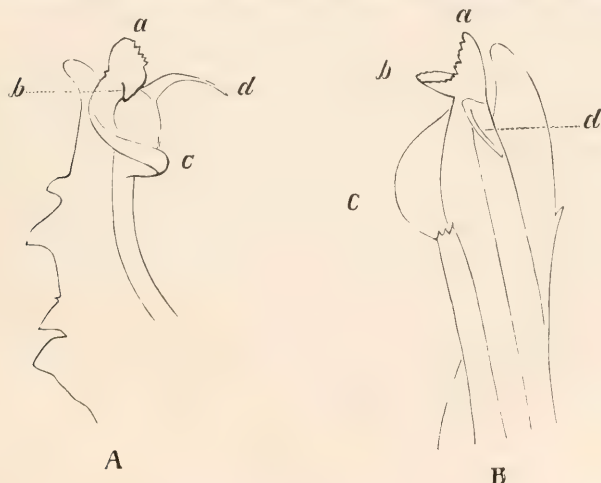


FIG. 2.—*Solpuga collinita*, n. sp., dorsal finger of left chelicera from the outer side (A), and from above (B); *a*, apical lobe; *b*, outer process of *a*; *c*, external lobe; *d*, filiform process.

smaller than the second tooth. The flagellum also similar, excepting that the sharply-pointed, curved, apical spur* is replaced by a more complicated expanded lobe (*a*, fig. 2). This lobe is laterally compressed, and appears broadly ovate with rounded apex when seen from the side (fig. 2A), while on the outer side it is provided with a

* In *cervina* this spur is really composed of 2 spurs so closely appressed that they appear at first sight to form only one piece. In the type there is a slight cleft separating the apices of the double spur.

straight acute process extending outwards at right angles from the posterior upper part (*b*, fig. 2). The upper edges of both the lobe and its process are continuously serrated. Moreover, the anterior part of the large lateral lobe (*c*, fig. 2), found in both species, is continued in the form of a spiral collar round the outer side of the flagellum to join the under side of the apical lobe. The curved filiform process (*d*, fig. 2) on the inner side near the apex is finely serrated.

Tergites of *abdomen* and *thorax* deeply infuscated, except the posterior ones, the abdominal tergites thickly clothed with long brown setæ, which are blackened at the base. Soft, pale yellowish skin on the sides of mesial and posterior abdominal segments with similar setæ, the sides of the anterior segments naked. Tergites and sides of abdomen without a coat of short fine hairs; abdominal sternites thickly covered with fine yellowish hairs.

Pedipalps remarkably long and slender as in *cervina*, the tibia equal to the metatarsus and tarsus together and about $1\frac{1}{4}$ times as long as the width of the head-plate; under side of the 3 distal segments with a number of longish truncated cylinder-bristles, which are numerous on the tarsus and metatarsus but less numerous on the tibia; distal end of pedipalps and the basal part (including base of femur) pale yellowish, the remainder dark purplish.

Legs also dark purplish, but the basal segments, the tarsi, metatarsi and upper surface of tibiæ pale yellowish, the metatarsi purplish at the sides in the basal half.

Measurements.—Total length (including chelicerae) $29\frac{1}{2}$ mm.; median length of head-plate 5, width $5\frac{1}{2}$; length of pedipalp (exclusive of coxa) $32\frac{1}{2}$; length of tibia $10\frac{1}{2}$.

SUB-FAMILY DÆSIINÆ.

GEN. BLOSSIA.

BLOSSIA LITORALIS, n. sp.

Specimens.—2 ♂♂ and 1 ad. ♀ (No. 8795; November) from the sea-shore opposite Duiker Klip, near Hout Bay, and 1 juv. ♀ (No. 3792) from the sea-shore at Oukraal, near Camps Bay, all found under stones just above high-water mark by my wife and myself. Both localities lie on the western shore of the Cape Peninsula between Camps Bay and Hout Bay. I have also seen a specimen, no doubt, belonging to the same species, much higher up on the mountain side, and have taken a very young specimen on Signal Hill.

The species is very closely allied to *B. crepidulifera*, Pure. (Ann. S. A. Mus., v. 2, p. 214, 1901), but differs in the dentition of the chelicerae.

♂ ♂ (*Types*). *Colour* pale ochraceous, the distal and proximal part of the legs and the under side of the body very pale yellowish, the head-plate and the abdominal tergites faintly tinged with brown in places, the anterior margin of head-plate finely blackened.

Head-plate with medium-sized and longish spines at the sides and in front (longer than those in *crepidulifera*), and in addition with a number of minute brown spinules scattered over the surface.

Chelicerae.—Dorsal finger strong; its upper edge straight (except distally, where it curves downwards), without differentiated distal bristle; its ventral edge with an inner, very blunt, laminate tooth and a smaller, more conical, outer tooth next to one another near the apex, and followed by 2 strong pointed teeth, the distal one of the 2 latter having its posterior side longer than that of the proximal one; then follow 2 smaller teeth and the teeth of the double series. Ventral finger with the usual small tooth between 2 large ones in the middle, but in addition with another tooth about midway between the large distal tooth and the apex of the finger. Flagellum very like that of *crepidulifera*, but with the stalk longer and the expanded portion more ovate.



FIG. 3.—*Blossia litoralis*, n. sp., right chelicera of ♂ from outer side (the base of the flagellum shining through the translucent jaw).

Abdomen as in *crepidulifera*.

Pedipalps with the dorsal cylindrical bristles on the tibia as long as those on the metatarsus (as in *crepidulifera*, *karrooica*, &c.); tibia with strong spines below; metatarsus with 3 stout spines below, the proximal one longest and about twice as long as the inferior cylindrical bristles.

♀ and juv.—*Head-plate* with the numerous short setæ more cylindrical, the stouter ones being dark brown but not spiniform. *Pedipalps* with 3 stout spines below on both tibia and metatarsus. Dentition of *chelicerae* normal, the dorsal finger with only 1 intermediate tooth.

Measurements.—♂ 11½, large ♀ 16 mm. in length.

GEN. MELANOBLOSSIA, n. g.

Head-plate almost semicircularly produced in front. Ocular tubercle with a semicircle of fine setæ on the medial side of each eye. *Chelicerae* rapidly narrowed in the middle part, stout at base. *Pedipalps* short, the tibia and metatarsus without spines below. Legs short, posterior femora not thickened but several times as long as wide; metatarsi of second and third legs with dorsal spines; tarsi of second and third legs 1-jointed, those of fourth leg 2-jointed and slender, the distal joint shortest.

Adult ♂ with fleshy hairs on the second abdominal sternite. Flagellum not rotatable, consisting of a flexible, densely hairy rod directed forwards and lying against the inner surface of the upper jaw, and so completely hidden between the *chelicerae*.

Type: *M. braunsi*, n. sp.

The two species described below differ rather considerably in the convexity of the head-plate and in the denseness of the covering of short setæ. The small flagellum of the typical species so closely resembles the adjacent hairy setæ that it would be difficult to recognise it but for the presence of the conspicuous flagellum in an exactly similar position in *M. globiceps*, n. sp.

MELANOBLOSSIA BRAUNSI, n. sp.

Specimens.—1 ad. ♂ (type, No. 10,092) and 6 immature specimens (Nos. 8781, 9762), collected at Willowmore, Cape Colony, by Dr. H. Brauns, who first discovered the species. Also, 1 juv. from Hanover, collected by Mr. S. C. Cronwright Schreiner.

Diurnal; adult ♂ found on December 1, 1901.

♂. *Colour* for the most part black; thoracic tergites brownish yellow; tergites of first 5 abdominal segments brownish in the middle but more yellowish laterally; sternites of abdomen yellow in anterior but reddish in the posterior segments, the soft skin at the sides deep black; coxæ and trochanters yellowish but more or less strongly infuscated; malleoli black-edged; legs black, with peculiar blueish-white sheen on the dorsal surface of the metatarsi,

tibiæ, and distal part of femora (also observable on the tarsus and metatarsus of the pedipalps).

Head-plate with some longer and shorter, fine, notched setæ above but not densely clothed with minute cylindrical bristles; the surface moderately convex, the hinder portion inclined and not rising perpendicularly; head-plate and thickened portion of chelicerae together oval in outline and distinctly longer than broad.

Chelicerae with fine notched bristles. Dorsal finger strongly laterally compressed, forming a vertical lamina, except quite at the base; the upper edge rising convexly from the base; the lower edge concave just before the middle; apical fang small, curved downwards, followed by a series of 6 small teeth, the 2 distal ones on a prominent convex edge; the seventh tooth large, followed by 2 large outer and a couple of very long inner teeth. Ventral finger longer than the dorsal one, with the usual 3 teeth. Flagellum small and incon-



FIG. 4.—*Melanoblossia braunsi*, n. sp. A, right chelicera of ♂ from outer side; B, dorsal finger of right chelicera from inner side more highly magnified to show the flagellum, f.

spicuous, being merely a straight, hairy, pallid rod, resembling one of the series of hairy setæ placed immediately below it (see fig. 4B) on the inner side of the dorsal finger above the space between the two large basal teeth.

Pedipalps clothed, but not densely, with long and short notched bristles, some of those on the under side, especially of the tibia, stouter and longer.

Abdomen with blackish brown or black setæ and hairs; second segment with a group composed of a pair of long, narrow, clavate, brownish, acutely pointed, fleshy hair-structures on each side on ventral surface; genital sclerites forming a long, narrow, spindle-shaped area, exceeding half the sternite in length.

Immature ♀♀.—First 4–5 segments of abdomen as in ♂ or more yellowish, especially in younger specimens, posterior segments dark brown; under side of abdomen yellowish. In young specimens the

dark pigment is less intense, and the tibiae and metatarsi of the legs are pale yellowish, with the dorsal glaucous sheen.

Chelicerae.—Dorsal finger with first and third tooth large, the second and fourth small, the fifth larger than the fourth, followed



FIG. 5.—*Melanoblossia braunsi*, n. sp., right chelicera of ♀ from outer side.

by several small outer and some inner teeth. Ventral finger with the usual 3 teeth in the middle, but in addition the terminal fang is minutely denticulated above in front of the large distal tooth.

Measurements.—Ad. ♂ $6\frac{3}{4}$, largest immature ♀ $9\frac{1}{4}$ mm. in length.

MELANOBLOSSIA GLOBICEPS, n. sp.

Type.—1 ad. ♂ (dried specimen, No. 1056) from Namaqualand, Cape Colony, bearing the label "O'okiep, G. Worden, 1886."

♂. *Colour** black, the legs whitened apparently in much the same way as in the previous species.

Head-plate broad and high, strongly convex, the posterior surface rising vertically; posterior and lateral margins semicircularly rounded and forming with the thickened basal portion of the chelicerae a complete circle; surface of head-plate thickly covered with very short and numerous, blackish brown, cylindrical or pointed bristles, and provided also with a few long setae.

Chelicerae very stout at the base but strongly and suddenly narrowed in the middle, furnished with rather fine, dark brown, longish setae but without short ones like those on the head-plate. Dorsal finger strongly laterally compressed, lightly curving downwards distally, the upper edge rising convexly from the base, the lower edge sharp and laminate, sinuous, being lightly convex in the middle but lightly concave in front of and behind the convexity, the edge without any large teeth but with 4 small recurved teeth. Ventral finger equalling the dorsal in length and straight, the apex

* In old dried specimens it is not always possible to give the colour in detail, owing to discoloration of parts of the body.

shortly upturned, the upper edge provided with 4 teeth near the middle, of which the proximal and distal ones are large and equal and the 2 intermediate ones smaller, the proximal intermediate tooth being the smallest of the four; the upper edge also minutely and unevenly denticulated or roughened in front of the distal tooth. Flagellum much larger and more conspicuous than in *M. braunsi*, n. sp., but similarly situated, formed of a curved pallid rod densely

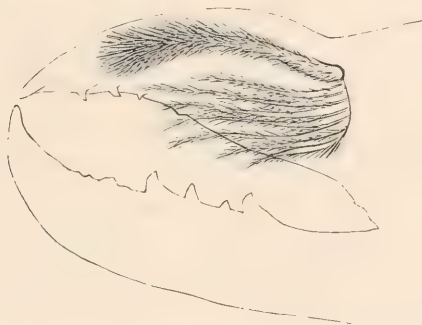


FIG. 6.—*Melanoblossia globiceps*, n. sp., right chelicera from inner side.

covered with soft pallid hairs, those at the apex longest, forming a club.

Pedipalps stout and shortish, with long, fine, brown hairs and setæ and densely covered besides with short and very numerous, blackish brown, mostly truncated, cylindrical bristles, those on the upper side of the femur extremely short, those on the tibia, metatarsus, and tarsus longer.

Legs clothed, especially on the femora and basal segments, with numerous short, white, notched bristles, besides long brown hairs and setæ.

Abdomen with numerous white hairs at the sides and below, the second segment with a group of 8–12 long, filiform, pale yellowish, fleshy hairs spread over each half of the sternite.

Measurement.—Total length $9\frac{3}{4}$ mm.

SUB-FAMILY KARSCHIINÆ.

GEN. TOREUS, n. g.

Adult male without distinguishable flagellum. Upper lobe of rostrum bent downwards at apex, the upper edge of the apical

part curving strongly downwards and the lower edge horizontal



FIG. 7.—*Toreus capensis* (Purc.), rostrum of ad. ♂.

and slightly concave; the setal plate strongly inclined, nearer the vertical than the horizontal. Other characters as in *Ceroma*, Karsch.

Type: *T. capensis* (Purc.), originally described as *Ceroma capensis* in Ann. S. A. M., v. 1, p. 339, figs. 15–15b, 1899.

In *Ceroma* the dorsal lobe of the rostrum is more evenly pointed and the setal plate less vertical.

The typical specimen, which was found in the Cape Peninsula, was originally described as a female of the genus *Ceroma* on account of the absence of the flagellum. The genital plate, however, is that of the adult male.

GEN. LIPOPHAGA, n. g.

Head-plate with the anterior margin only slightly curving forwards. Ocular tubercle slightly projecting beyond the anterior margin, its anterior surface without hairs but bearing a pair of spines placed on a pair of prominent conical tubercles. Pedipalps of moderate length and rather stout; the metatarsus appearing slenderer towards the base, especially when seen from the side, its under side with numerous truncated cylinder-bristles. All the legs with a single tarsal joint and small pulvillus; the first leg with a pair of minute claws; metatarsi of second and third pair with 4–5 stout dorsal spines and several slenderer inferior spines, that of fourth leg also with inferior spines. Chelicerae with a series of very short ridges at anterior edge of the large smooth area on inner surface.

Adult ♂ differing from the ♀ and young in having the chelicerae and head-plate much more strongly spined, the pedipalps somewhat longer and slightly stouter and provided with a row of strong spines on the lower inner edge of the tibia. Flagellum not distinguishable. Upper lobe of rostrum with the lower edge slightly concave and the

upper edge convex, the apex, however, scarcely downcurved; lower lobes about as long as the upper lobe.

Type: *L. trispinosa*, n. sp.

The local name of this and other *Solifugæ* is according to Mr. Goold "*Vet-vreter*" (Fat-eaters).

LIPOPHAGA TRISPINOSA, n. sp.

Specimens.—5 ad. ♂ ♂, 1 ad. ♀, and 3 juv. (No. 10,091) from Stompneus and Soldatenpost at St. Helena Bay, Malmesbury Div., Cape Colony, found by Mr. J. E. C. Goold under stones in May and June, 1902.

♂ ♂ (*Types*). *Colour* very pale yellowish. Chelicerae with a lateral and 2 dorsal, darkly infuscate stripes, which unite distally, the upper and outer surface besides with generally somewhat indistinct, infuscate reticulation. Head-plate strongly infuscated, the greater part (middle and posterior portion) being covered with a fine but indistinct and blurred reticulation, excepting the narrow transverse anterior band and a large, oblique, antero-lateral patch on each side, which are more uniformly infuscated; median line yellow; ocular tubercle deep black. Abdominal tergites more or less extensively infuscated at the sides and in the middle, but with a large yellow area on each side of the median patch; some of the segments infuscated also along the anterior and posterior margins. Pedipalps with the 3 distal segments and the distal half of the femur infuscated, the under side of the femur and tarsus, however, and to some extent that of the metatarsus and tibia, pale yellowish. Legs partially infuscated, principally on the sides of the femora, tibiae, and proximal part of the metatarsi.

Head-plate.—Hind margin with 4 very strong, large, equal spines, besides a smaller outer spine on each side and a number of still smaller ones scattered between the large spines; whole surface densely covered with minute cylindrical bristles and provided with some stout, medium-sized and small, scattered spines, especially towards the sides.

Chelicerae with numerous, stout, pointed spines, many of them quite short and conical, on the upper and outer surfaces but with no distinguishable flagellum. Dorsal finger conical, nearly straight, the terminal fang strong, slightly curved; distal tooth moderate, second tooth small, third large, fourth small, fifth and sixth large—then follow 2 small teeth, a large one and several small ones; inner row composed of a few basal teeth. Lower finger considerably longer

than the upper, with 3 strong teeth near the middle, the intermediate rather large but smaller than the other two.

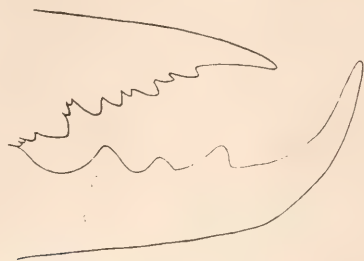


FIG. 8.—*Lipophaga trispinosa*, n. sp., right chelicera of ad. ♂ from outer side.

Pedipalps (like the legs) densely covered with minute cylindrical bristles; under side of tarsus and metatarsus with numerous, moderately long, truncated, cylindrical bristles; tibia with scarcely any of the longer cylinder-bristles below, but with 3 powerful spines in the distal half along the inner inferior margin, in addition to a few smaller slender spines; femur with several inner spines.

Abdomen.—Genital sclerites forming a long spindle-shaped area and considerably exceeding half the sternite in length.

♀. The infusate reticulation on the chelicerae and head-plate very distinct and sharply defined. *Head-plate* and *limbs* without the dense coat of minute cylinder-bristles; the spines on the former replaced by long spiniform setae (except on the ocular tubercle). *Chelicerae* also with the stout spines replaced by spiniform setae and slender spines, somewhat larger than in the ♂, the upper finger strongly curved downwards at the apex, the dentition as in the ♂; lower finger not longer than the upper. *Pedipalps* with fewer cylinder-bristles on the under side of the metatarsus and tarsus, the spines on the tibia and femur replaced by much slenderer, long setae. *Genital sternite* with the posterior median cleft very deep, extending through more than half the length of the sternite, the inner hind angles rounded off.

The *young* resemble the female (except in the genital sternite).

Measurements.—Total length of ♂ ♂ $15\frac{1}{2}$ mm., ♀ $20\frac{1}{2}$; length of head-plate in a ♂ 3, ♀ 3, of pedipalp (exclusive of coxa) in ♂ $12\frac{1}{2}$, ♀ $10\frac{1}{2}$.

2.—*New Arachnida collected by Mr. S. C. Cronwright Schreiner at Hanover, Cape Colony. With Plate I.*—By W. F. PURCELL, Ph.D., *First Assistant.*

THE altitude of the town of Hanover is 4,686 ft. above sea-level, and the district of that name forms part of the high-lying arid karroo-plateau which occupies the interior of Cape Colony.

During the last four months of 1901 and the beginning of 1902 Mr. S. C. Cronwright Schreiner set himself to collect the Arachnid fauna of this district, and with very remarkable success got together several thousands of specimens, which were well preserved in spirits and given to the South African Museum. Although the great bulk of this collection was made by Mr. Schreiner himself in the immediate neighbourhood of the town of Hanover, a considerable number of specimens were obtained on farms in the district by the Dutch farmers and their children, whose services were enlisted, the farms mentioned in this paper in this connection being Vlagkop, Palmietfontein, and Poortjesfontein, all 5–6 miles north of Hanover; Eierfontein, about 8–9 miles west of Hanover; and Krapfontein, about 15 miles west of Hanover.

Mr. Schreiner was particularly successful in collecting a large number of specimens of trap-door spiders, which, although numerous, require considerable perseverance as well as experience to detect in their well-concealed burrows. Three large trap-door spiders (a *Goryrella* and 2 species of *Stasimopus*) of the family *Ctenizidæ* were found to be common in the district, but 2 smaller species of the same family and 1 of the family *Migidæ* were also obtained, all these spiders being new. Mr. Schreiner also found numbers of a trap-door *Lycosa* * and of a most interesting new Eresid, which, although not belonging to a trap-door-building family, constructs the remarkable nest described and figured further on.

* No doubt *L. domicola*, Sim., but I cannot discover the original description of this species, which is mentioned in Simon, *Araign.*, 2^e Ed., t. 2, pp. 329 and 341.

In the present paper 2 new *Solifugæ* and 13 new spiders are described, these being, however, only a portion of the new species contained in Mr. Schreiner's collection.

ORDER SOLIFUGÆ.

DÆSIA SCHREINERI, n. sp.

(Pl. I., fig. 11.)

Types.—1 nearly mature ♀ and 1 ad. ♂ (No. 8783) from Hanover, 1 ad. ♀ (No. 9775) from Eierfontein, 1 ad. ♂ (No. 9765) and 1 nearly mature ♀ (No. 9783) from Palmietfontein, and 1 ad. ♂ (No. 9776) from Vlagkop (ad. ♀ in December, ♂ ♂ in October and December).

♀ ♀. *Head-plate* resembling that of *leipoldti*, Purc., in colour, but with the long setæ slightly stronger and more conspicuous, especially on the anterior side of the eye-tubercle, which bears, in addition to a number of fine setæ, 3 pairs of long conspicuous spines (forming part of the semicircular row round each eye), the upper pair being setiform and the distance between the middle (stoutest) pair at most only slightly exceeding half the distance between the eyes.

Chelicerae pale yellowish or pale ochraceous, the dorsal infuscated stripes not expanded nor united distally, the inner stripe less distinct than the outer one, the dorsal surface marmorate on each side of the outer stripe; the lateral surface not marmorate, with a feeble infusate stripe at base. Jaws normal, the dentition as in *kolbei*, Purc., except that there is always only one intermediate tooth above; the distal upper tooth smaller than the second.

Abdomen.—Tergites with a narrow median infusate band and on each side a broad infusate lateral patch. *Soft skin* on each side with a long transverse row of 4–7 short, strongly curved, claw-like spines near the anterior margin in segments I and II; with a group of 1–4 similar spines (becoming longer posteriorly) in 1–2 rows in the upper part in segments III–VI or III–V and with a pair of long subsetiform spines on each side in segment IX (a similar inferior spine sometimes present in segment VIII and a shorter superior one sometimes in segment VII); segment X without spines; also an inferior transverse row of 4–6 small curved spines near hind margin in segment III and adjoining these in the lower anterior part of the sides in segment IV is a transverse row of 4–8 parallel longitudinal ridges. All the curved spines on segments I–VI are curved backwards, and

are considerably or only slightly darker than the other hairs and setæ.* Their number appears to be rather variable.

Pedipalps infuscated in the same manner as in *leipoldti*, excepting the femur, which has a dorsal longitudinal stripe as well as the under side and the distal portion of the segment infuscated, the sides also faintly infuscated in the middle portion. Shape of metatarsus and tarsus as in *leipoldti*, but the spine-armature of the metatarsus, tibia and femur very much stronger and similar to that in *kolbei*, Purc. (Ann. S. A. Mus., v. 1, p. 391).

Legs with the proximal and distal segments pale yellow; the femora infuscated, especially in fourth leg, on the anterior surface, the distal part of the posterior surface and to a lesser extent above; the tibiæ infuscated, excepting below; metatarsus I infuscated (excepting below), II and III slightly or scarcely at all infuscated at the base on each side, IV infuscated in the basal half on each side. Metatarsi II and III spined as in *leipoldti*.

♂ ♂. *Head-plate* with the long setæ very strong and stout; the spiniform setæ and spines on the upper and anterior surfaces of the ocular tubercle very strong.

Chelicerae bristling with long, strong, spiniform setæ above and with short ones on the outer side. *Upper finger* (pl. I., fig. 11) very straight distally, becoming gradually pointed towards the apex; terminal fang compressed laterally, concave on the inner side and only slightly curving outwards; the dorsal edge (seen from the side) slightly convex in the basal part, but lightly inclined and quite straight in the distal half; the ventral edge evenly concave, excepting at the terminal fang, where it is straight; distal tooth saw-edge-like, very low and remote from the apex, second and fourth tooth strong, long and directed forwards, third (intermediate) tooth small, the fourth tooth followed by an outer and an inner row of 3-4 teeth each. *Lower finger* normal, with 2 long hooked teeth and a small intermediate one. *Flagellum* a thin-walled, transparent, colourless, laterally compressed, elongate pear-shaped, hollow capsule, rounded in front and drawn out posteriorly into a grooved blunt point; the opening occupies the whole lower half of the inner surface; the outer side with a brownish rib along the middle and rotatably attached at about $\frac{1}{4}$ of its length from the anterior end to the inner surface of the upper finger on a level with the fourth

* The inferior row of spines and ridges in the third and fourth segments were first noticed by Pocock in *D. bernardi*, Poc., from Hex River Valley, Cape Colony, but they are also present in *D. leipoldti*, Purc.

tooth. Rotated forwards, the flagellum reaches to the apex of the upper finger.

Abdomen.—The spines corresponding to those on the soft skin of the sides in the ♀ thinner, longer, and much less conspicuous than in the ♀, those of the more posterior segments scarcely, if at all, distinguishable from the bristles, but the inferior spines and ridges of segments III and IV distinct. Ventral side of segment II with a large patch of turbinate and clavate, ochraceous to brown, fleshy hair-structures (about 15–20 large and from 40 to over 100 smaller ones).

Pedipalps longer and stouter than in the ♀, the spine-armature much the same, except that in the metatarsus the 2 distal setæ of the inner row are replaced by 2 strong, much shorter spines, each tipped by a fine bristle, which is apparently sometimes absent (broken off?), and in the femur there is a very strong spiniform seta, equalling the inferior setæ in stoutness, on the inner surface distally (represented in the ♀ by a much finer seta).

Measurements.—Total length of ad. ♀ $20\frac{1}{4}$ mm., of ♂ ♂ $19\frac{1}{2}$ –23, of pedipalp in ♀ 14, in largest ♂ 20, of head-plate ♀ 3·2, ♂ 4.

Closely allied to *D. leipoldti*, Purc. (Ann. S. A. Mus., v. 1, p. 388), but differing principally in being much more strongly spined on the pedipalps. The abdomen is pale yellowish in the ♂, but may be reddish in the immature ♀. Found under stones in the day-time.

BLOSSIA ECHINATA, n. sp.

(Pl. I., fig. 10.)

Specimens.—1 ♂ (No. 9777) and 1 ad. ♀ (No. 9769) from Hanover (♂ in January, ♀ in December).

♂ (*Type*). *Colour* pale yellow; head-plate with faint infusate stains (except in the middle), the anterior margin narrowly blackened; the 3 distal segments of pedipalps (except below) and the distal part of the femur fuscous brown; legs III and IV with the femora yellowish at base, fuscous brown distally, the tibiæ fuscous brown on the sides; metatarsus of leg IV and the base of that of leg III fuscous brown on the sides.

Head-plate with long and medium-sized, strong, notched spines scattered over its surface, some of those at the sides and in front being almost as long as those at the hind margin.

Chelicerae bristling with numerous, long, stout spines; the distal dorsal bristle long and slender, lightly curved, not reaching to apex of jaw, its surface minutely roughened in the distal half. *Dorsal*

finger (pl. I., fig. 10) almost straight, furnished with a small sharp tooth before the middle on the dorsal edge; the ventral edge almost straight, the teeth of the distal series pointed, composed of 2 large distal ones remote from the apex, a smaller third tooth and a large fourth tooth, the latter slightly smaller than those of the distal pair and followed by a smaller tooth and others of the double series; terminal fang long, curving slightly outwards and downwards towards the apex, its lower edge with a minute tubercle or slight convex dilatation before the large distal tooth. *Ventral finger* high, with 3 pointed teeth in the middle, the intermediate one small (obsolete on one side); in front of these is a rounded upright keel on the inner edge and a smaller, brown, tubercular tooth or keel on the outer edge of the upper side. *Flagellum* long, very like that of *karrooica*, Purc., the lightly inflated basal part elongate and strongly curved, laterally compressed, and open along the ventral side, the anterior end attached to the inner side of the finger above the third (intermediate) tooth; the distal part forming a linear, laterally compressed rod, slightly longer than the inflated basal part and strongly curving outwards, but appearing almost straight when seen from the side, the apex suddenly pointed and upturned.

Abdomen.—The tergites in the anterior and middle portion of the abdomen (like those of the thorax) with a number of strong notched spines, replaced by slenderer setæ in the posterior segments; second abdominal segment below with 2 clusters of 3 fleshy, pale yellowish hairs each, meeting distally in the median plane, the hairs long, filiform and curved.

Pedipalps with the cylindrical bristles on the dorsal surface of the tibia as long as those on the metatarsus, as in *karrooica*; the metatarsus with 3 long, strong, very distinct, ventral spines; the tibia with 4 (sometimes 3?) long spines below.

Total length 10 mm.

♀. Only one of the 6 female *Blossia* captured appears to be the ♀ of this species. The colour of this specimen is much as in the ♂, except that the limbs are still more faintly infuscated, while the thoracic and abdominal tergites are distinctly, although lightly, tinged with fuscous brown, especially towards the sides. The chelicerae and head-plate are strongly spined, as in the ♂ (except that the spines are shorter and relatively stouter), and furnished in addition with numerous very short and stout spinules, corresponding in part to the short, cylindrical setæ of the other species, some of which setæ are also present here. First 6 abdominal tergites with a row of moderately long spines along hind margin, besides some very short

and stout spinules scattered over the surface, the posterior segments with cylindrical setæ instead of spines. Spines on the metatarsus as in the ♂ but shorter, the tibiæ with a row of 4 spines below, besides a longer, slenderer, proximal one. Dentition of chelicerae normal, with one intermediate tooth above. Second abdominal segment injured below.

Total length $13\frac{1}{4}$ mm.

This species is closely allied to *B. karrooica*, Purc. (Ann. S. A. Mus., v. 2, p. 216), and *B. setifera*, Poc. (Ann. Mag. N. H., ser. 7, v. 5, p. 301). It is found under stones.

ORDER ARANEÆ.

FAM. MIGIDÆ.

MOGGRIDGEA SETICOXA, n. sp.

Types.—3 ♀ ♀ (measuring from $10-12\frac{1}{2}$ mm. in length) from Hanover (No. 9459) and Eierfontein (No. 10053) (September and January).

♀ ♀. *Colour*.—Carapace, chelicerae and limbs pale yellowish olivaceous, the yellow predominating in some parts, the green in others, the lateral edges and median longitudinal line of the cephalic portion darkened; abdomen pale yellowish, the upper side more or less dark purplish; sternum, coxæ, and often parts of the legs, pale yellowish; spines on the legs black.

Carapace wide, its length (measured laterally to the ocular area) a little less than that of the tibia, metatarsus and tarsus of first leg, but considerably less than that of the tibia and metatarsus of fourth leg in largest ♀. *Ocular area* almost $2\frac{1}{2}$ times as wide as long, its width a little less than the length of the metatarsus of first leg; the anterior row of eyes with its hind margin only very slightly procurved (when seen from above), the lateral eyes much larger, their diameter $2-2\frac{1}{2}$ times that of the small median eyes; posterior row strongly recurved, the eyes smaller than the anterior medians, equal to each other or the laterals slightly larger, the medians distant about their own diameter or slightly less from the laterals, which again are separated from the anterior laterals by scarcely more than a long diameter of the latter.

Legs.—*Tarsi* I and II with minute setæ below in rows; III densely studded below and at the sides with stout, black, setiform spines, especially distally; IV with black setæ, those on the under side mostly stout or even spiniform. *Metatarsus* I with 6-9 spines on each side; II

with 5-8 spines on each side; III and IV with some long distal spines or spiniform setæ; IV also with an infero-posterior apical tuft of 3-4 spiniform setæ, exactly resembling those of a *Stasimopus*. *Tibia* I almost or quite twice as long above as wide, with 5-6 inner and 6-8 outer spines; II with 4-6 spines on each edge; III with some curved, apical, setiform spines above; IV with some long distal spines or spiniform setæ below. *Patella* III with an anterior upper row of shorter, stout, curved (at apex of segment almost setiform) spines, and a posterior upper row of longer, stout, spiniform setæ; IV with a broad, anterior, upper band of shorter setiform spines, and a posterior upper row of longer, stout, spiniform setæ. *Coxæ* muticous, with stoutish setæ below; III with a posterior basal group of 9-10 more spiniform setæ below.

Labium with the teeth longish and on the anterior half only.

Coxæ of pedipalps with the basal teeth long, the toothed area in the distal half of the coxa very narrow and composed of only 1-2 rows of teeth.

Measurements of a ♀.—Total length $11\frac{1}{2}$ mm.; length of carapace 4.1, width $3\frac{2}{3}$.

The specimens were found under stones.

FAM. CTENIZIDÆ.

STASIMOPUS SCHREINERI, n. sp.

Types.—One large ♀ (36 mm. in length; November), and 4 smaller ♀ ♀ (21-28 mm. in length; Nos. 9513, 9516, 9551, 9558) from Hanover and Poortjesfontein (October, November), and 1 ♂ (No. 9159) from Hanover (September). ♂ found under a stone, ♀ ♀ in trap-door burrows. Five younger specimens, the smallest measuring $9\frac{3}{4}$ mm. in length, were also obtained, but are not comprehended in the following description.

Closely allied to *S. leipoldti*, Purc. (Trans. S. A. Phil. Soc., v. 11, p. 348).

♀ ♀. *Colour* much darker than in *leipoldti*, the abdomen more or less blackish purple above, especially posteriorly.

Carapace almost as long as the patella, tibia and metatarsus of first leg, and as the tibia, metatarsus and tarsus of fourth leg in the large ♀, but shorter in the smaller specimens. *Ocular area* wide, its width behind equalling the metatarsus together with $\frac{1}{2}$ - $\frac{3}{4}$ of the tarsus of first leg, but slightly less than the fourth metatarsus. Eyes rather far apart, disposed much as in *leipoldti*; the anterior laterals large and oval, the posterior medians small, strongly oval, subequal

to or even slightly smaller than the posterior laterals, and distant from them by about an eye's diameter or less; the area formed by the posterior median and anterior lateral eyes distinctly, sometimes only very slightly, narrower behind than in front; distance between the posterior and anterior lateral eyes considerably exceeding the long diameter of the latter; the distance between the former pair of eyes also distinctly and generally considerably exceeding the width of the anterior row of eyes.

Pedipalps with a band of 11–18 short, close-set spines along the whole length of the inner side of the tarsus, and an internal row of 2–4 (rarely only one) stout spines on the tibia; tarsus with a tiny basal patch of 10–20 minute spinules above, the tibia with a tiny apical group of 2–8 such spinules above.

Legs.—Length of tibia of *first leg* at least equal to that of the metatarsus, and very slightly (large ♀) or more considerably (smaller ♀) exceeding the width of the anterior row of eyes, but always decidedly less than the width of the posterior row; tibia with an internal band of 7–20 spines, occupying the distal third at least, the upper side with a tiny apical patch of minute spinules; metatarsus with a tiny basal patch of spinules above, occupying $\frac{1}{10}$ – $\frac{1}{6}$ of the length. *Second leg* with a broad band of spines on outer surface of tarsus and 4–12 spines on inner surface of tibia. *Third leg* with 0–3 posterior and a number of distal anterior spines on the tarsus, 16–23 spines in the anterior and posterior bands on the metatarsus, a number of distal spines on each side of the tibia, and a band of 11 or more stout spines on the anterior side of the patella; the latter also with a number of slenderer distal spines and spinules above (quite absent in *leipoldti*); metatarsus with an apical patch of spines or setæ below. *Fourth leg* with a number of anterior spines on the 3 distal segments; the anterior patch of red spinules on the patella very large, extending over more than $\frac{1}{2}$ and up to $\frac{3}{4}$ of the length of the anterior side; infero-posterior apical tuft of metatarsus composed of 4–9 similar spiniform setæ arranged in a transverse row, as in *leipoldti*.

Labium with 4–8 apical teeth.

Measurements of large ♀.—Total length 36; length of carapace 11·9, width $10\frac{1}{3}$; length of metatarsus of first leg 4; width of ocular area 5.

♂. *Colour*.—Carapace dark brown, the cephalic region and the granules black; chelicerae brown; abdomen black, only the genital segment below, the lung-books and the spinners pale yellowish; pedipalps and 2 anterior pairs of legs black, but their tarsi, the distal part

of the tibia of the pedipalps and the greater part of the metatarsi of the legs pale ochraceous; the 2 posterior pairs of legs pale yellowish, more or less infuscated in parts, especially on the femur of third leg; sternum pale yellowish behind, lightly infuscated in front; the 2 posterior pairs of coxæ and the anterior lower edges of the 2 anterior pairs pale yellowish; coxæ of pedipalps dark brown.

Carapace covered with confluent granules and ridges on the thoracic portion; the cephalic portion not punctate, with some fine granules and ridges in the posterior part only, and densely, finely and transversely striated and wrinkled in the anterior part at the sides, the upper part with 3 strong keels, of which the lateral ones are abbreviated behind, while the median one becomes very fine and is continued to the fovea. Carapace as long as the metatarsus and about $\frac{1}{3}$ of the tarsus of first leg, but a little shorter than the metatarsus of fourth leg. Eyes much as in the ♀, but the anterior laterals hardly larger than the medians.

Pedipalps not spined, remarkably long and thin, reaching beyond the apex of the metatarsus of first leg, when stretched out in front; all the segments, including the femur, almost straight; the tibia swollen, elongate-clavate, as long as the fourth metatarsus and very distinctly longer than the carapace; patella very long and slender, only a little shorter than the tibia and at least equal to the tibia of first leg. Process of palpal organ long and very slender, much longer than the bulb, strongly bent at the thickened base and curved again distally.

Legs.—*First leg* very long and slender, the tarsus swollen and scopulate below, with 1 internal and 0–1 external spine; metatarsus quite straight, thickly spined on both sides below but not along the median line; tibia a little longer than the metatarsus, thickly spined below; patella with a few, distal, subsetiform spines below. *Second leg* spined like the first, the tarsus like that of the first but with 1–2 internal spines and 1 external one. *Third leg* with the tarsus cylindrical, scopulate below, and with 3 anterior and 2–3 posterior spines; metatarsus slightly curved, spined below, with a few spines also along the anterior and posterior sides; tibia spined at the apex on each side and with a distal patch of spinules above; patella with an anterior row and a distal patch of spinules above. *Fourth leg* with the tarsus cylindrical, without trace of scopula, and provided with 1–2 internal and 11–13 external spines; metatarsus slightly curved, with a few spines below and externally; tibia with a pair of minute, distal, external spines; patella with a large patch of minute spines extending over about $\frac{2}{3}$ of the length of the anterior side; the posterior

apical fringe of setae on the metatarsus present but less distinctly differentiated than in the ♀.

Measurements.—Total length 12; length of carapace 4.9; length of pedipalp (including coxa) $18\frac{1}{2}$; length of first leg 21.

Nests.—The nests with the surrounding earth of 3 of the younger specimens and the tube and lid of one of the typical females were sent to me by Mr. Schreiner. Their dimensions in mm. are as follows:—

	No. 9525.	No. 9520.	No. 9524.	No. 9558.
Width of lid taken parallel to hinge	$7\frac{2}{3}$	15	16	20
Width of lid taken at right angles to hinge	8	$14\frac{1}{2}$	$14\frac{2}{3}$	$19\frac{1}{2}$
Width of hole at 10 mm. from edge	$6\frac{1}{2}$	11	$12\frac{1}{2}$?
Width of hinge	4	9	$9\frac{1}{2}$	$11\frac{1}{2}$
Average thickness of lid about	2	$2\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$
Length of occupant	$13\frac{3}{4}$	$19\frac{1}{2}$?	28
Width of its carapace	$3\frac{1}{2}$	$5\frac{3}{4}$	$6\frac{1}{5}$	$8\frac{1}{4}$

The hole in the 3 smaller specimens is cylindrical and almost but not quite perpendicular, inclining slightly towards the hinge side as it descends, so that the deeper part comes to lie below the hinge (*cf.* pl. I., fig. 1). It is well lined with silk, and widens slightly but very distinctly all round at the opening, commencing at about 4–5 mm. from the edge.

The door is thick and nearly circular, the circumference being, however, slightly straightened at the hinge, excepting in the smallest specimen. The upper surface is irregular, concave or nearly flat and coated with mud, thus resembling the surrounding earth. The under side is flat or more or less lightly convex; it is strongly bevelled at the edge, the bevelled surface passing over quite gradually into the flattened lower surface (the lower edge somewhat angular in places in the smallest specimen only). There is no circle of conspicuous large holes on the under surface, only very few, if any, of the larger holes being present.

STASIMOPUS UNISPINOSUS, n. sp.

(Pl. I., figs. 1–2.)

Types.—1 large ♀ (38 mm. in length) and 5 smaller ones (24–30 mm. in length) from Hanover and the neighbouring farm

Poortjesfontein in October (Nos. 9426, 9523, 9579). Three younger specimens, the smallest $11\frac{3}{4}$ mm. in length, and a large number of very young individuals from a nest were also sent but are not comprehended in the following description.

♀ ♀. *Colour* as in *leipoldti*, but the upper side of the abdomen extensively blackish brown posteriorly and furnished anteriorly with a blackish brown median spot, generally followed by another smaller spot.

Carapace as long as the patella, tibia, and $\frac{2}{3}-\frac{5}{6}$ of the metatarsus of first leg, and equal to the tibia, metatarsus, and $\frac{2}{3}-\frac{2}{3}$ of the tarsus of fourth leg. *Eyes* compact, the width of the ocular area behind $\frac{3}{4}$ to nearly equal to the length of the metatarsus of first leg and $\frac{3}{4}-\frac{3}{4}$ that of fourth leg. Anterior row of eyes with the hind margin (seen from above) straight or slightly procurved, the median eyes nearer to the laterals than to one another, the laterals much larger, strongly transversely oval. Posterior row straight or nearly so, a line joining the anterior margins sometimes slightly recurved or even slightly procurved; the median eyes oval or subcircular, their outer edges very distinctly nearer together than the outer edges of the anterior lateral eyes; posterior lateral eyes oval, subequal to the median eyes and less than an eye's diameter from them, their distance from the anterior laterals generally much less than (rarely equalling) the long diameter of the latter; a line parallel to the long axis of the body and touching the outer edges of the anterior laterals would cut or touch the posterior laterals but rarely pass on their median side.

Pedipalps and *legs* more numerously spined than in *leipoldti*. Tarsus of *pedipalps* with 6-9 shortish spines on the inner side; the tibia with 1, rarely 2, distal internal spines in addition to the basal spine; the upper surface of the tarsus with a basal patch of 10-20 minute spinules, the tibia with a similar apical patch of 6-15 spinules. *First leg* with the tibia slightly shorter than the metatarsus, $1\frac{1}{3}-1\frac{1}{2}$ times as long as the width of the anterior row of eyes and provided with a band of 11-25 short spines along at least the distal half of the anterior surface; the superior band of spinules on the metatarsus occupying from about $\frac{1}{2}$ to $\frac{2}{3}$ of the length of the segment. *Second leg* with 4-12 short spines on anterior surface of tibia, and with the superior patch of spinules on the metatarsus slightly shorter; otherwise spined like the first leg. *Third leg* with 5-17 posterior spines on the tarsus and 16-32 stout spines in the anterior and posterior bands on the metatarsus; the tibia with a large anterior and posterior distal patch of stout spines; distal superior patch of red spinules on the tibia large,

occupying $\frac{2}{3}$ – $\frac{1}{2}$ of the length of the segment; patella with a superior distal patch of stoutish or slender, sharp spinules, in addition to the short stout spines along the anterior surface; metatarsus with an inferior apical tuft composed of 3–11 irregularly arranged, unequal spines and some spiniform bristles. *Fourth leg* with a number of spines on the anterior surface of the 3 distal segments; the basal patch of red spinules on the patella very large, reaching to the distal fifth or sixth of the segment on the anterior surface; infero-posterior apical tuft on metatarsus formed of a single, long, stout spine, usually flanked by 1–3 slenderer spines or spiniform setæ, the under surface sometimes also with a stout spine remote from the apex.

Labium with 5–8 apical teeth.

Measurements of largest ♀.—Total length 38 mm.; length of carapace $12\frac{1}{4}$, width $10\frac{1}{4}$; length of metatarsus of first leg $4\frac{3}{4}$; width of ocular area $3\frac{2}{3}$.

This species is closely allied to *S. oculatus*, Pocock (P.Z.S., 1897, p. 728), from Bloemfontein.

Nests.—The nests with the surrounding earth of 2 of the younger specimens and of 1 of the typical females and the lid of another of the typical females were sent to me by Mr. Schreiner. Their dimensions in mm. are as follows:—

	No. 9561.	No. 9560.	No. 9523.	No. 9579.
Width of lid taken parallel to hinge	$6\frac{1}{4}$	$10\frac{1}{3}$	$19\frac{1}{2}$	$23\frac{1}{4}$
Width of lid taken at right angles to hinge	$5\frac{3}{4}$	$9\frac{3}{4}$	$17\frac{1}{2}$	$22\frac{1}{2}$
Width of hinge	$2\frac{1}{4}$?	8	11
Width of hole at 10 mm. from edge	5	8	$15\frac{1}{4}$?
Average thickness of lid about	$2\frac{1}{4}$	$3\frac{1}{2}$	$5\frac{3}{4}$	4
Length of occupant	$11\frac{3}{4}$	17	$24\frac{1}{2}$	29
Width of carapace	$2\frac{3}{4}$	$4\frac{1}{4}$	$7\frac{1}{2}$	$8\frac{1}{4}$

These nests closely resemble those of *S. schreineri* described above but there are some differences in the structure of the lids by which they may be easily distinguished.

The lids of *unispinosus* (pl. I., figs. 1–2) are relatively much thicker (cf. measurements), the edges less bevelled, the peripheral surface appearing much less wedge-shaped, when seen from the side, and passing over at the more angular lower edge rather suddenly into the flattened under surface. This is particularly marked in the

2 smallest specimens, in which the lids are almost cylindrical and quite cork-like. But the principal feature of these lids is the presence of a number of very conspicuous, large pits, arranged in a circle and situated half-way between the centre and the circumference of the lower surface. These pits may be open, or partly filled up, or spun over with some strands of silk, being, however, still visible as dark spots. Sometimes the portion of the circle nearest the hinge is obliterated.

GORGYRELLA SCHREINERI, n. sp.

(Pl. I., figs 3-4.)

Types.—35 specimens (No. 9518, &c.), mostly adult females from Hanover, and 5 from the neighbouring farms Vlagkop and Poortjesfontein. Adult ♀ ♀ from September to January. Cocoons in December. Young in January.

♀ ♀. *Colour* like that of *G. namaquensis*, Purc. (Trans. S.A. Phil. Soc., v. 11, p. 350) or darker; the carapace and limbs pale ochraceous, often faintly infuscated; chelicerae yellowish brown to darker brown; abdomen wholly pale yellowish to dirty ochraceous, the dorsal surface sometimes darkened with purplish brown; sternum and coxæ pale yellow to ochraceous; labium and coxæ of pedipalps slightly darker ochraceous to light brown.

Carapace (measured laterally to the ocular area) as long as the tibia, metatarsus, and $\frac{1}{6}$ – $\frac{1}{3}$ of the tarsus of fourth leg and as the patella, tibia, and $\frac{1}{2}$ – $\frac{2}{3}$ of the metatarsus of first leg. *Ocular area* wider than in *namaquensis*, its width equalling or exceeding the length of the metatarsus of first leg (by about $\frac{1}{4}$ of the tarsus), its length also generally much less than the distance between the lateral eyes. The area formed by the anterior lateral (frontal) and anterior median eyes parallel-sided or wider in front (rarely very slightly wider behind), the median eyes $\frac{2}{3}$ – $1\frac{1}{2}$ times their diameter apart, the frontal eyes subequal to or considerably larger than the medians and $\frac{1}{2}$ –1 diameter apart. Posterior median eyes generally distinctly further from the posterior laterals than from one another (sometimes only as far); the area formed by the 4 median eyes very distinctly wider behind than in front; posterior lateral eyes large, their distance from the anterior margin of carapace less than $\frac{1}{2}$ the width of the ocular area.

Pedipalps and *legs* as in *namaquensis*, except that the tibia of the fourth leg is provided with 3–10 (rarely 0–2) short spinules along the outer surface, at least at the base; the metatarsus of the third leg with 2 (sometimes 3) distal spines (rarely spiniform setæ) below;

the inner distal edge of patella of third leg with 4-9 stout apical spinules; the inferior surface of coxæ of first leg generally entirely without dentiform spinules, sometimes, however, with a few weak and inconspicuous ones confined to a narrow area in the basal half of the posterior margin of the coxa, this area very much less extensive than the large denticulate area on the coxa of second leg. (In *namaquensis* the denticulate area on the first leg is almost or quite as extensive as that on the second leg, and occupies almost half of the inferior surface of the coxa.)

Genital operculum smooth for some distance in front of the hind margin (in one specimen with a transverse groove near hind margin, as in *namaquensis*).

Measurements of largest ♀.—Total length 33 mm.; length of carapace 10, width 9; length of tibia of first leg $4\frac{1}{2}$.

Cocoons.—The cocoons, of which 2 specimens were obtained, consist of a white oval capsule, almost flat on one surface, but strongly convex on the other, and of a tough parchment-like texture. The oval edge of the flattened side is provided all round with a broad free flap. I counted in one uninjured cocoon 89 eggs, measuring on an average 2.4 mm. in diameter (in spirits). The flat side of this cocoon measured 22 mm. by 13 mm., and its thickness was about 9-10 mm. The eggs occupy only slightly over half the inner cavity. The embryos, which were preserved on December 1st, were already considerably advanced.

A ♀ with a brood of young was dug up on January 11th.

Nests.—The nests, with the surrounding earth of 4 of the specimens, were sent to me by Mr. Schreiner, the dimensions being as follows:—

	No. 9509.	No. 9519.	No. 9508.	No. 9510.
Width of lid taken parallel to hinge	18	$18\frac{1}{4}$	21	24
Width of lid taken at right angles to hinge	$15\frac{1}{3}$	15	$18\frac{1}{2}$	$18\frac{1}{2}$
Width of hinge	$13\frac{3}{4}$	17	$16\frac{1}{2}$	$19\frac{1}{2}$
Width of hole at about 20 mm. from edge ...	$10\frac{1}{2}$	12	$15\frac{1}{2}$	$16\frac{1}{4}$
Average thickness of lid ...	2	$2\frac{1}{2}$	3	3
Length of occupant	20	$19\frac{1}{2}$	26	27
Width of its carapace	$5\frac{1}{5}$	$6\frac{1}{5}$	$7\frac{3}{4}$	9

Although constructed on the same plan as those of *Stasimopus*, the nests of *Gorygyrella* are easily distinguishable from those of that genus.

The hole is much more slanting, and although cylindrical or nearly so in the deeper parts, it widens funnel-like towards the opening on each side and also at the hinge, but not on the side opposite to the hinge (pl. I., fig. 3). The hole is, therefore, oval in section near the opening, with the hinge-side flattened.

The lid is D-shaped in outline (pl. I., fig. 4), being strongly truncated at the hinge-margin. The hinge is very wide, exceeding in width the cylindrical part of the hole. In other respects the lid resembles that of *Stasimopus schreineri*, described above. The edge is strongly bevelled, passing over quite gradually into the lower surface, on which there is no circle of conspicuous pits. A small group of these pits are, however, sometimes present in the centre.*

The lids and loosened tubes of a number of other specimens were also sent by Mr. Schreiner, having been removed from the surrounding earth. In such cases the bevelling at the edge of the under surface is frequently quite absent, owing to the flattening out of the lid by pressure during packing. Such lids have the false appearance of being perfectly flat on the under surface.

ANCYLOTRYPA PUSILLA, n. sp.

Type.—1 ♂ (No. 9455) from Hanover (October).

♂. *Colour*.—Carapace pale yellowish, not black-bordered but

* The nests of the 3 large trap-door-building spiders at Hanover may be distinguished as follows:—

- a. Lid D-shaped, the hinge very wide, wider than the cylindrical part of the hole; no circle of conspicuous pits below (hole more strongly slanting, the upper part oval in section, with one side flattened).

Gorgyrella schreineri, n. sp.

- b. Lid nearly or quite circular, the hinge narrower than the cylindrical part of the hole, which is only slightly slanting.

- a'. Lid moderately thick, strongly bevelled at the edge, with rounded lower edge; under side without circle of conspicuous pits.

Stasimopus schreineri, n. sp.

- b'. Lid very thick, less strongly or scarcely at all bevelled at the edge, the lower edge more angular; under side with a circle of very conspicuous pits *Stasimopus unispinosus*, n. sp.

I may mention here an interesting observation in connection with old trap-door nests. In November, 1897, Mr. Isaac Meiring discovered 3 Geckos in a closed trap-door nest of a species of *Stasimopus* common round Worcester, Cape Colony. The spider was, of course, no longer in the nest. In February, 1902, Mr. Schreiner found a number of old trap-door nests at Hanover inhabited by the same species of Gecko, which has been identified by Mr. W. L. Slater as *Pachydactylus mariquensis*,⁸ Smith. One such nest sent to us was that of *Gorgyrella schreineri*, n. sp., and in it one young and two adult Geckos had been found. Mr. Schreiner mentions that the doors of the nests inhabited by Geckos remain in working order, and are kept closed as usual.

finely sprinkled with olive-brown towards the middle, the lateral margins of the cephalic portion conspicuously olive-brown; chelicerae yellowish brown; abdomen broadly purplish black above, the sides and posterior surface of abdomen, the whole under surface of body, the legs and the pedipalps very pale yellowish.

Carapace just exceeding the metatarsus and half the tarsus of first leg in length, provided with two pairs of black setiform spines or stout setae behind and with a number of small black setae along the lateral margins and behind. *Ocular area* scarcely more than twice as wide as long, with parallel sides; the anterior row of eyes with their posterior margins in a straight line (seen from above), the median eyes rather large, larger than the eyes of the posterior row and more than half as large as the anterior laterals; the posterior row slightly recurved, the posterior lateral eyes slightly longer than the medians and about half the length of the anterior laterals, separated from the latter by almost their own length and from the former by slightly less, the posterior median eyes subquadrate, nearer to the posterior laterals than to the anterior medians.

Pedipalps not spined; process of palpal organ a little longer than the bulb, yellowish at base but black distally, the basal three-fifths stout and straight, becoming slenderer distally, the distal two-fifths very fine and slender, lightly curved.

Legs.—All the *tarsi* scopulate, I and II with 0-1 small external spines below, III with 1 anterior and 0-1 posterior spine, IV with a series of longer and shorter spines (about 2 deep) along outer lower edge and 1 spine at the inner lower edge. *Metatarsus* I very slightly curved, not scopulate, with 3 distal, 1-2 mesial, and 2 basal spines (the inner mesial and basal spine being much weaker than the others); II without inner spines below, except at the apex. *Tibia* I very slightly curved, slightly shorter than the metatarsus, not incrassated nor spurred, with 3 apical spines below, 3-4 other stout spines along the outer lower edge, 2-3 mesial and basal ones just above these on the outer surface, and a pair of proximal ones along the inner upper edge; II with 3 apical spines below, 1-2 along the upper inner edge, and 3-4 stout setiform spines along outer lower edge; IV with 3 internal spines and several long, setiform, inferior spines. *Patellae* I and II mostly with an internal spine, III with numerous spines on anterior surface and one distal one on upper surface. *Claws* of legs with a number of teeth in each row.

Posterior spinners with the apical segment distinctly longer than the penultimate one.

Abdomen with long spiniform setae above, especially at the base.

Posterior *sternal sagilla* moderate, oval, their distance apart being at least equal to the width of the labium and about twice their own length, which slightly exceeds or is subequal to their distance from the lateral margin of sternum.

Measurements.—Total length 9, length of carapace $3\frac{3}{4}$.

This is the second South African species of the genus recorded. It was found under a stone.

CYRTAUCHENIUS DENTATUS, n. sp.

Types.—4 ♀ ♀ (Nos. 9418, 9511, 9515) from Hanover (October, November), all of about the same size and apparently adult. They were dug up from trap-door nests.

♀ ♀. *Colour*.—Carapace yellowish brown, sometimes tinged with olivaceous, the cephalic portion darker brown at the sides and behind but without dark median band, the thoracic portion with a white insertion on each side posteriorly; chelicerae dark brown, sometimes olive-brown; legs pale ochraceous, the femora greenish yellow; abdomen pale yellowish, the dorsal surface with large, median, dark purplish area, which is broadest in front but does not reach hind end, the posterior end also purplish round the spinners; sternum and coxae pale ochraceous, the coxae of pedipalps, and often also the anterior and lateral part of sternum, brown.

Carapace as long as the patella, tibia, and $\frac{3}{5}$ – $\frac{4}{5}$ of the metatarsus of first leg, and equal to or exceeding (by about $\frac{1}{4}$ of the tarsus) the tibia and metatarsus of fourth leg. *Ocular area* nearly $2\frac{1}{2}$ times as wide as long, very distinctly or only slightly wider behind than in front, the hind margin of the anterior row forming a nearly straight to very distinctly procurved line, the anterior margins of the posterior row forming a very distinctly recurved line; posterior lateral eyes larger than the anterior medians but smaller than the anterior laterals, their distance from the latter $\frac{3}{4}$ or at least over $\frac{1}{2}$ of their own length and equal to or slightly exceeding their distance from the posterior median eyes, which are round or squarish, slightly larger or smaller than the anterior medians and equally remote (by $\frac{1}{2}$ or a whole diameter) from them and from the posterior laterals.

Legs.—*Tarsi* I and II thickly scopulate, I not spined, II with 1–2 external spines below, III with 2–7 stout spines in the posterior dorsal row. *Metatarsi* I and II scopulate to the base on each side, the scopula absent along the middle below in the proximal part, especially in II; I and II with 2–3 apical (the inner one sometimes

absent), 1 (sometimes 2) outer mesial, and 1 (sometimes 0) outer basal spines below, the latter sometimes replaced by setiform spines in II; III with an apical pair and 0-2 other spines below; IV with 0-2 spines along the upper inner edge. *Tibiae* III and IV with 1-2 apical spines or spiniform setae, III also with an antero-dorsal band of spines, a postero-dorsal row of 2-4 spines, 1-3 dorsal spines, and 2 distal posterior spines; IV unspined at the upper inner edge. *Claws* of anterior legs with 4-7 teeth in each row; inner claw of posterior legs with 0-2 basal and 2 mesial (axial) teeth, the outer claw with 1-2 mesial (axial) and 0-1 basal teeth. The legs otherwise as in *C. lateralis*, Purc. (Trans. S. A. Phil. Soc., v. 11, p. 357).

Coxae of pedipalps with 1-5 rather strong, black teeth at the anterior basal margin.

Posterior *sternal sagitta* moderately large, oval, their distance apart equal to their distance from the lateral margin of sternum opposite the third leg, and slightly less than or slightly exceeding their own length.

Posterior spinners with the apical segment only a little longer than the penultimate segment (seen from below).

Measurements.—Total length 19; length of carapace $6\frac{1}{4}$, width $4\frac{3}{4}$.

Nests.—Mr. Schreiner sent me the upper portion of the web-tubing with doors attached of a couple of the nests. According to Mr. Schreiner the hole descends to a depth of about 25 cm., and is well lined with web, especially in the upper part, while the door is a flexible limp flap, being merely a continuation of the web-tubing. The upper surface of the door lies flush with the surrounding surface of the ground, and it is quite undiscoverable, unless a crack is left open. Its edge apparently slightly overlaps the edge of the tube. In one case a double entrance was observed.

In the specimens sent to me the door appeared to be about 9 mm. in diameter and subcircular in outline, the hinge occupying, however, quite half the circumference. The under side of the door, like the interior of the tube, is white and smooth, but the upper side is rough and covered with adhering particles of fine sand.

FAMILY THERAPHOSIDÆ.

HARPACTIRA BAVIANA, n. sp.

(Pl. I., fig. 9.)

Types.—2 ♂♂ from Hanover and 5 ♀♀ from Hanover and the farms Poortjesfontein and Krapfontein (Nos. 9562, 9959, 9960,

10048). Also about 90 young from Hanover (σ σ in October, φ φ in October, November, and January).

Closely agrees with the description given of *H. namaquensis*, Purc. (Trans. S. A. Phil. Soc., v. 11, p. 324), and apparently differing only in the following characters:—

Carapace with a considerable number of dark olivaceous or olive-black hairs between the pale golden bands, and also on the cephalic area behind and at the sides. Posterior lateral eyes elongate, generally considerably longer than the posterior median eyes.

Palpal organ, when seen from the side (pl. I., fig. 9), with the process stouter at the base and becoming very regularly thinner from the base to the apex, more quickly in the proximal part, but very gradually in the distal half, its strongest curvature appearing at the middle, while the distal part is straighter and very fine (seen from the front the distal part appears strongly curved outwards).

Measurements of large σ and φ from Hanover.—Total length σ 40, φ 51; length of carapace σ 16, φ 19 $\frac{1}{4}$, of metatarsus of first leg σ 12 $\frac{1}{4}$, φ 9 $\frac{3}{8}$.

In *namaquensis* (pl. I., fig. 8) the proximal $\frac{3}{4}$ or $\frac{5}{8}$ of the process (when seen from the side) appears stout, only very slightly curved and becoming very gradually thinner, then tapering suddenly and passing into the fine, somewhat bristle-like, distal fourth or fifth, the strongest curvature appearing at the point where the bristle-like part commences (seen from the front the process appears slightly out-curved at the apex only). The posterior median eyes, also, are generally almost or quite as large as the posterior laterals.

H. baryana is found under stones, generally in shallow excavations, but sometimes also in burrows a few inches deep. It is a very common species, although adults were rarely met with.

FAMILY ERESIDÆ.

GEN. SEOTHYRA, nov. gen.

Cephalic portion of carapace very high, strongly rounded posteriorly, rounded also at the anterior lateral corners and just as long as wide, its upper surface strongly and evenly convex from in front to behind in the φ (being highest in the centre) but somewhat flattened with the highest part behind in the adult σ . All the eyes small and equal, the median eyes in 2 rows and close together; the area formed by the lateral eyes scarcely, if at all, narrower behind than in front, less than twice as wide as long. Clypeus considerably

wider than the anterior median eyes. Superior spinners very small, scarcely half the length of the inferior ones. Legs shorter in the ♀ but longer in the ad. ♂; the first pair in the ad. ♂ with the tibia, patella, and femur strongly incrassated, the 3 posterior pairs slender. Chelicerae elongated and the cribellum very small in the ad. ♂.

Allied to *Dorceus* and *Adonea* from the N. African deserts. The females and immature males are sedentary and construct curious trap-door nests, but the adult ♂ runs about in the daytime and mimics an ant in its movements and general appearance while running.

SEOTHYRA SCHREINERI, n. sp.

(Pl. I., pp. 5-7.)

Specimens.—19 ♂ ♂ and 20 ♀ ♀ from Hanover (types, No. 9955, December); also 1 ♀ and 19 young from Hanover (No. 9568, November), and a few young from Poortjesfontein. The young ♂ resembles the ♀ in colour.

♀ ♀. *Colour* (in spirits) of limbs flavous, the distal ends of the pedipalps and first 2 pairs of legs orange or reddish brown; carapace yellow, the thoracic portion paler, the cephalic portion darker and often more brownish yellow; chelicerae reddish; abdomen pale yellowish or quite pallid.

Whole spider covered (but not densely) with fine black bristles and shorter, more appressed, white hairs, which are scarcely visible in spirits, but become silvery when dried.

Anterior median *eyes* about a diameter apart, very close to the posterior median eyes and $1\frac{1}{2}$ –2 diameters from the anterior margin of carapace. *Vulva* with a large, depressed, anterior area lying at the bottom of a cavity with longitudinal oval opening, the depressed area suddenly expanding posteriorly into a large, transversely oval area, the latter not depressed but defined on each side by a curved groove containing a dark spot. *Legs* IV, I, II, III.—All the tarsi and metatarsi (especially the posterior pairs) with short black spines below, metatarsus I also with an internal apical spine; tibia I with a fringe of long hairs on inner side, II with a couple of spines along under side, III and IV with 1–2 apical spines below.

♂ ♂. Carapace more or less infuscated, with black hairs; the thoracic portion brownish yellow posteriorly, with white hairs at the lateral margins; summit of cephalic portion reddish, with white hairs; chelicerae blackish red or red; coxa, trochanter, and generally also the base of the femur of first leg reddish yellow or ochraceous, rest of the leg more or less blackened, but the tarsus, metatarsus,

parts of the tibia (especially the distal part of the upper surface), and sometimes part of the patella above, paler, yellowish or reddish; the 3 posterior pairs of legs mostly yellowish but often partly infuscated, the femora black distally, the coxæ pale yellowish. Abdomen blackened, the upper surface with a very broad band of pale hairs (often creamy or whitish in spirits but yellow when dry), which covers nearly the whole upper surface or is constricted in one or two places. Pulmonary opercula often pale yellowish, with white hairs. Sternum reddish yellow. The sternum, the coxæ, trochanters, and paler basal portion of the femora of all the legs with silvery white or pale yellowish hairs, as well as black ones; so also the patellæ (only very sparingly in I), tibiæ (except basal part of I), metatarsi (except distal part of IV), and base of the tarsi. Legs I, IV, II, III.—Tibia I without interior fringe of long hairs. Pedipalps dark, the tarsus narrow at apex and produced, the palpal organ ending distally in a flattened bidentate process, one of the teeth slender and filiform, the other broader and obtuse.

Measurements.—Total length ♂ ♂ $4\frac{3}{4}$ – $6\frac{1}{2}$, ♀ ♀ 5–8 mm.

Nests.—Mr. Schreiner supplied me with a number of details concerning the structure of the nests, and also with several complete nests with the surrounding earth. The accompanying figs. 6 and 7 on pl. I., drawn to natural size, have been made from two of these nests, and the descriptions of the nests and habits given in the following are from Mr. Schreiner's notes.*

* For the purpose of travelling the loose sand in which the nests are built may be held together for a short time by first carefully moistening with water. Another and more permanent method, which I suggested to Mr. Schreiner, was employed by him with great success, and is the following: A quantity of solid paraffin is melted and carefully and gradually poured (by means of a small stick) on to the sandy soil at half an inch or so from the edge of the door. The sand rapidly soaks up the melted paraffin, and on cooling the whole mass may be removed and easily transported without damage. The ground, of course, should be perfectly dry. In order to examine such a nest it is necessary to soften the paraffin of the upper part. This is best done by wrapping the nest in cotton-wool, leaving only the upper surface exposed, and then placing the whole in warm oil of turpentine. If the nest is a large one it may be placed in water up to within a quarter of an inch from the upper surface and warm turpentine then poured upon the water. After a short time the door will be sufficiently flexible to be turned over and examined, and will remain flexible for some time after removal from the turpentine bath, but ultimately the whole will harden as before.

As showing how great a heat these spiders can endure, Mr. Schreiner sends me the following note: "When, on one occasion, I had poured the melted paraffin and it had soaked into the sand and saturated the 'butterfly' lid, after a little while the spider (finding it a bit hot, no doubt!) walked out from under the lid, leaving a little arch in it where she had travelled! No doubt this capacity to stand heat is essential to creatures living in sand which, in the hot summer days, becomes almost too hot for the hand to endure."

According to Mr. Schreiner the nests are built in ruddy, gritty sand, composed of disintegrated dolerite boulders, the particles of which are coarsest on the surface but become finer deeper down. The door consists of a large, four-lobed, flexible flap, shaped like the outspread wings of a butterfly, one pair of lobes or "wings" being slightly wider than the other (pl. I., fig. 5). The beautifully symmetrical outline is only faintly visible, and is interrupted between the larger pair of lobes, being here continuous with the webbing of the tube. The door of one of the largest nests met with by Mr. Schreiner had an expanse of 40 mm., while that of the nest of a subadult ♂ sent measured 30 mm. in expanse.

The door lies in a shallow concave excavation similar in outline, and in the nests figured about 4-5 mm. deep, becoming shallower towards the edges. The inside surface of the excavation is composed of very fine sand of a lighter colour than the surrounding surface, and much smoother. Being larger than the door, it is not completely covered by the latter, a narrow depressed band of the lighter coloured fine sand being left exposed all round (except, of course, at the hinge), and it is only the presence of this band which enables one to detect the nest at all by means of the eye.

The small entrance to the hole lies just between the bases of the larger lobes. The hole itself descends straight or with a curve to a depth generally less than but never exceeding 2 inches. It is provided on the convex (hinge) side with a small side chamber at some distance from the entrance. According to Mr. Schreiner the hole is generally straight or nearly so, and not so curved as in fig. 7, while the side chamber is generally deeper down. The upper part of the hole is webbed for some distance from the entrance, and is invariably inclined as in fig. 7. At the entrance, which is strongly transversely oval, the upper part of the web-tubing passes over into the door, thus forming a hinge occupying half the circumference of the opening. At the lower half of the opening the web-tubing is produced into a characteristic, rounded, stout, tongue-shaped flap, which lies nearly horizontally on the bottom of the excavation below the centre of the door.

The structure of the door is peculiar. The door consists merely of a number of particles of fine sand, loosely held together by strands of fine silk. The under side is, however, smooth and well lined with white silk, but the upper surface is strewn with grit and exactly resembles the surrounding ground. The whole forms an extremely flexible mat, which Mr. Schreiner compares with the fresh skin of a kid. Except for the peripheral band it completely fills the ex-

cavation, so that its upper surface is flush with the surrounding ground.

The door is never lifted, for the small spider merely crawls out anywhere from under the edge, as from under a blanket (several were observed doing so), the raised portion of the limp door closing down again immediately from its own weight. The tongue-like flap at the opening of the hole no doubt facilitates entering the latter, besides preventing sand from falling in.

Habits.—The female spiders and young of both sexes feign death when disturbed. The nests of the immature spiders were found fairly abundant during November, while the adult form of both sexes appeared early in December (only one adult ♀ was found in November). The adult males run about the veld by day, but one specimen was dug up from a nest, apparently just after moulting. The males have a curious habit of raising their front legs and showing fight. When running, the males, according to Mr. Schreiner, show a close resemblance in colouration and movements to the smaller specimens of a large ant (*Camponotus fulvopilosus*, de Geer), which has similar yellowish hairs on the abdomen above and is common in the locality. Unlike the female, but like the ant, the male runs with its body high off the ground.

During January and February the spiders and nests disappeared, and it was not until March 10th that the tiny nests of some young ones were observed, only to disappear at the approach of bad weather. During some weeks of fine weather in the beginning of May large numbers of these tiny nests were again observed.

FAMILY LYCOSIDÆ.

LYCOSA SCHREINERI, n. sp.

Types.—5 ♀ ♀, 3 ♂ ♂, and 3 young from Hanover and from the neighbouring farms Vlagkop and Palmietfontein.

♀ ♀. Brown bands on *carapace* covered with black or blackish brown hairs and provided with radiating stripes of white hairs; the submarginal bands yellow, covered like the black margins with white hairs; the median band yellow, with whitish or yellowish hairs, its cephalic portion parallel-sided, often with 2 dark spots and generally marked off from the narrower thoracic portion by a slight angular constriction, the thoracic portion narrowed behind the median stria. Posterior median *eyes* large, scarcely or slightly

less than their own diameter apart; anterior row of eyes considerably narrower than the second row, procurved, the medians slightly larger. *Chelicerae* covered with fiery red and yellow hairs in front and with 3 strong teeth in lower margin, the 2 distal ones subequal. Upper surface of *abdomen* divided into 3 blackish grey and blackish brown areas by 2 longitudinal yellow lines, which extend with interruptions to hind end of body but converge and unite anteriorly, the posterior part of the upper surface with a series of transverse, angularly undulate bars, bordered posteriorly by white hairs and extending across the median dark band and generally also across the 2 yellow stripes; the anterior half of the median band strongly constricted just behind its middle, the portion before the constriction cuneate, strongly narrowed in front; the lateral bands black at anterior ends. Under side of abdomen black. Median bar of *vulva* narrowed behind, about $1\frac{1}{4}$ – $1\frac{1}{2}$ times as long as the transverse bar, the cavity on each side long, slightly wider than the median bar, and about $2\frac{1}{2}$ –3 times as long as wide. *Legs* reddish yellow to reddish, the femora infuscated in parts; tibia IV with broad black band at apex and base below, I–III not banded, or III also blackened at apex and base. Tarsi, metatarsi, and tibiae of first 2 pairs of legs scopulate below; tarsi III and IV with narrow scopula on each side; metatarsi III and IV thinly scopulate below and more thickly so at the sides. Basal spines in metatarsus I not or scarcely reaching the mesial spines.

♂♂. Colour much as in the ♀; tibia of first 2 pairs of legs equally clothed all round with pale appressed hairs, but without differentiated scopula below; metatarsi III and IV with scopula in the distal half only.

Measurements.—♂♂ $12\frac{1}{2}$ – $15\frac{1}{2}$, ♀♀ $15\frac{1}{2}$ – $21\frac{1}{2}$ mm. in length.

A rather rare species, somewhat larger than *L. darlingi*, Poe., which occurs abundantly in the same locality and very closely resembles *schreineri* in colour and structure. In the specimens of *darlingi* from the same locality the dark median band is relatively broader and more sharply and evenly defined on each side, and the anterior half of the band is only slightly or not at all constricted behind its middle, the whole anterior half, therefore, forming a larger cuneate mark. One, at least, of the specimens of *schreineri* was taken from a nest provided with a movable lid, like that of *L. domicola*, Sim., which occurs abundantly in the same neighbourhood.

LYCOSA RIMICOLA, n. sp.

Specimens.—9 ♂ ♂ and 9 ♀ ♀ (types, No. 9423) from Hanover (September, October). Also many other specimens from the farms Vlagkop, Palmietfontein, and Poortjesfontein.

♀ ♀. *Carapace* dark brown, with some fine, black, radiating lines and covered with grey hairs; the narrow, paler, submarginal band frequently obliterated; the paler median band often indistinct and then indicated only posteriorly, but when distinct the cephalic portion is broad with 2 parallel dark lines or oblong spots, while the thoracic portion is narrowed behind and frequently with lacinate margins. Posterior median *eyes* slightly less than their own diameter apart; the anterior row of eyes scarcely or not at all narrower than the row formed by the posterior median eyes, their lower margins in a straight or slightly procurved line, the median eyes a little larger than the laterals. Upper side of *abdomen* with light or dark greyish ground colour, a row of black spots on each side, an anterior longitudinal brown band finely bordered with black, and a pair of equally broad yellowish bands (obliterated in dark specimens) enclosing the brown band between them and converging and then uniting anteriorly; posterior to these are generally also a series of transverse angular bands of yellow. *Legs* reddish yellow, the femora with some faintly infuscate marks above but not distinctly banded, the anterior pairs frequently darker distally. *Chelicere* with some yellowish hairs in front, the lower margin with 3 teeth, of which the distal one is much the smallest. *Coxæ* more or less infuscated. *Sternum* generally black. *Under side of abdomen* black. Tarsi and metatarsi, and to a lesser extent the tibiae of the first 2 pairs of *legs*, scopulate; tarsi III and IV with a thick scopula on each side; metatarsi III and IV more thinly scopulate; spines on legs I and II small, those on the metatarsi especially remarkably short. Median bar of *vulva* long and linear, bordered on each side by a long, still narrower, parallel-sided cavity, the transverse posterior bar short.

♂ ♂. Very like the ♀, but the spines on the anterior legs much longer.

Measurements.—♂ ♂ 11–13 mm., ♀ ♀ 15–19 mm. in length.

A strongly built and rather common species, somewhat resembling *L. promontorii*, Poc., in appearance, but larger; the latter species also occurs in this locality. *L. rimicola* is found in various hiding-places, such as cracks in the ground, &c.

LYCOSA LATIVITTATA, n. sp.

Types.—3 ♀ ♀ and 6 ♂ ♂ (No. 9427) from Hanover.

♀ ♀. *Carapace* with 2 well-marked, broad, dark brown or blackish bands and narrow, blackish, lateral border, the submarginal yellow stripes very distinct and not obscured by the hair-covering; the median yellow band also well marked, its cephalic portion with a pair of small dark dots and marked off from the narrower thoracic portion by a slight angular constriction, the thoracic portion rather broad, constricted just behind the median stria, then widened again posteriorly. Posterior median *eyes* smallish, at least their own diameter apart; the anterior row of eyes slightly procurved, at least as wide or, if anything, slightly wider than the second row, the eyes subequal. *Abdomen* above and at the sides blackish grey to nearly black, with some scattered black dots; the upper surface with a sharply defined, very broad, median, yellow band, which is widest in front and extends right up to hind end, becoming only slightly narrower posteriorly; the band bordered on each side by a row of black spots, with a larger black mark on each side at anterior end; under surface, and generally also the lower part of the sides, pale yellowish, the under surface with a median dark stripe, which is dilated on the epigastric area and pointed at the posterior end, also with a pair of dark lateral stripes or rows of spots. *Vulva* much broader than long, divided by 2 angular grooves into a median bar and 2 lateral pieces, the median bar incurved and dilated behind. *Legs* pale yellowish or ochraceous, provided (also on under side) with rather numerous, long, erect, fine, black bristles; the femora mottled with infusate marks but not distinctly banded; legs I and II scopulate on the tarsi and metatarsi but not on the tibiae, III and IV scopulate on the sides of the tarsi only; basal spines of metatarsus I not quite reaching the mesial spines. *Chelicere* with some pallid hairs in front, the 3 inferior teeth subequal. *Sternum* black, with or without median yellow line. *Coxæ* pale yellowish or ochraceous, sometimes with infusate markings below.

♂ ♂. As in ♀, except that in legs I and II the metatarsi are not scopulate and have longer spines below, the long, fine, erect black bristles especially numerous on under side of second leg.

Measurements.—♂ ♂ $5\frac{3}{4}$ – $6\frac{3}{4}$ mm., ♀ ♀ $8\frac{3}{4}$ – $9\frac{3}{4}$ mm. in length.

A small species, found under stones, &c.

LYCOSA ARBUSCULA, n. sp.

Types.—11 ♂ ♂ and 22 ♀ ♀ from Hanover (No. 9429; September, October).

♀ ♀ ♂ ♂. *Carapace* coloured and marked exactly as in *lativittata*, n. sp. Posterior median *eyes* smallish, their distance apart at least equalling or even slightly exceeding their own diameter; the anterior row slightly procurved, as wide as or slightly wider than the second row, the median eyes slightly larger than the laterals. *Abdomen* above and at the sides blackish grey to nearly black, with some scattered black dots; upper surface with a narrow, median, yellow stripe, which is transversely dilated at its anterior end like a T and provided in the posterior $\frac{2}{3}$ of its length with paired lateral branches directed obliquely outwards and backwards; the stripe and its lateral branches bordered with deep black; a black spot also on each side of the anterior dilation. Under surface, and frequently also the lower part of the sides, pale yellowish, marked as in *lativittata*. *Vulva*, *legs*, *chelicerae*, and *sternum* as in *lativittata*, the coxæ often with infusate markings. Legs with the basal spines on metatarsus I not or only just reaching the mesial spines.

Measurements.—♂ ♂ 5–6 $\frac{1}{4}$ mm., ♀ ♀ 6–9 mm. in length.

This species so closely resembles *lativittata* that practically the only difference between the two is the substitution of a broad, straight-edged yellow band in the latter in the place of the tree-shaped band on the abdomen of the former.

LYCOSA BRUNEIPES, n. sp.

Types.—19 ♀ ♀ and 7 ♂ ♂ (No. 9428; September, October) from Hanover.

♀ ♀. General colour above and below pale yellow to ochraceous. *Carapace* only slightly infuscated on the 2 darker bands, but provided here with black hairs; the cephalic portion of the median yellow band strongly constricted at its hind end, provided with a pair of ()-shaped lines, which are generally fused anteriorly (sometimes almost entirely) with the dark lateral bands but sometimes reduced to a pair of posterior spots or even almost absent; the thoracic portion of the yellow median band constricted near hind end of median stria and thence parallel-sided or even widened again posteriorly; infusate lateral border generally absent or indistinct, the margin then broadly yellow. Posterior median *eyes* smallish, very slightly less than their own diameter apart; the anterior row at least as wide as or, if anything, slightly wider than the second row, the lower margins in a slightly recurved or nearly straight line, the median eyes largest. *Abdomen* with a broad, pale yellow, uninterrupted median line above, which is narrower posteriorly and ex-

tends to hind end and has its lateral margins more or less sinuate, its anterior part more or less amplified like a broad, blunt arrow-head, the median part above the heart more intensely yellow and sometimes bordered with black (in the latter case the barbs of the arrow-head may become cut off from the shaft or be even almost obliterated); lateral part of upper surface with a broad, irregular, infusate band, which is furnished posteriorly with a longitudinal row of yellow spots or medial bar-like incisions, and which breaks up laterally into a number of black spots on the sides of the abdomen; under surface with the median and the 2 lateral rows of spots generally distinct; the epigastric area without black marks. *Vulva* a brown hairy plate about as long as wide, with a round, reddish black spot near each posterior corner, the posterior margin with a pair of emarginations and a short rounded lobe between them. All the *legs* strongly browned in the distal half, the 2 distal segments long and slender; first and second pairs scopulate on the tarsi and metatarsi but not on the tibiæ; third and fourth pairs with a narrow scopula on the sides of the tarsi but none on the metatarsi; basal spines of metatarsus I long, reaching up to or beyond the bases of the mesial spines. *Sternum* generally with a row of 3 lightly infusate spots on each side. *Chelicerae* with some whitish hairs and fine black bristles in front; the distal tooth of inferior margin smaller than the other two.

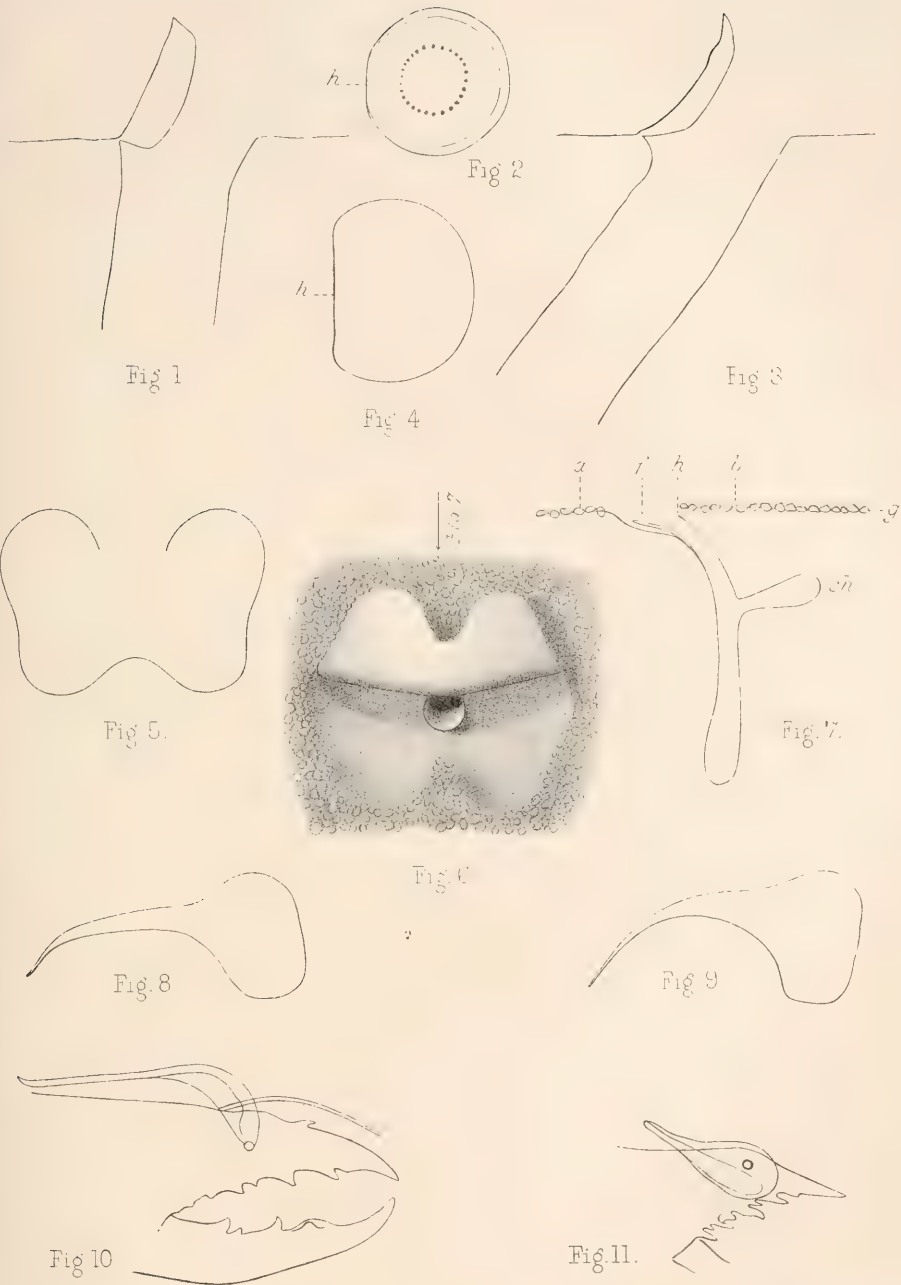
♂ ♂ resembling the ♀, except that the scopula is reduced to a scanty distal strip on each side in metatarsus I and is practically absent in II, the black bristles on under side of second leg not longer than those on the other legs. Tibia of pedipalp as long as the tarsus.

Measurements.—♂ ♂ $5\frac{1}{2}$ –7 mm., ♀ ♀ 6– $10\frac{1}{4}$ mm. in length.

A small species, somewhat resembling *lativittata*, n. sp., in appearance, but with the dorsal yellow band on the abdomen less parallel-sided and the lateral part of the upper side of abdomen and carapace not so deeply blackened. It is found under stones, &c., and is fairly abundant.

EXPLANATION OF PLATE I.

- FIG.
1. *Stasimopus unispinosus*, n. sp., upper part of nest in section (nat. size).
 2. " " " lid from below, showing circle of pits; *h*, hinge (nat. size).
 3. *Gorgyrella schreineri*, n. sp., upper part of nest in section (nat. size).
 4. " " " lid from above; *h*, hinge (nat. size).
 5. *Seothyra schreineri*, n. sp., diagram showing outline of lid of nest (from a sketch supplied by Mr. Schreiner).
 6. " " " surface view (nat. size) of a nest, hardened with solid paraffin, with the lid softened by turpentine and partly rolled over to show the small entrance to the hole and the flap. (According to Mr. Schreiner a lid in its natural condition would not remain in this position owing to its great limpness.)
 7. " " " vertical section of a nest, taken in the direction shown by the arrow in Fig. 6 (drawn to nat. size from a specimen hardened with solid paraffin); *a-b*, extent of lid on each side of hole; *h*, hinge of door (the latter torn away); *f*, flap at entrance to hole; *ch*, side chamber; *g*, surface of sand.
 8. *Harpactira namaquensis*, Purc., palpal organ (seen from the side).
 9. *Harpactira baviana*, n. sp. " " "
 10. *Blossia echinata*, n. sp., right chelicera of ♂ from outer side (basal part of flagellum visible through the translucent jaw).
 11. *Dæsia schreineri*, n. sp., left chelicera of ♂ (seen from inner side).



West, Newman lith.

Figs 1-2, *Stasimopus unispinosus*.

Figs 5-7, *Seothyra schreineri*.

Fig. 9, *Harpactira baviana*.

Figs 3-4, *Gorgyrella schreineri*.

Fig 8, *Harpactira namaquensis*.

Fig. 10, *Blossia echinata*.

Fig. 11, *Daesia schreineri*.

III.—*Rhynchotal Miscellanea.* (Second Series.)—By W. L. DISTANT.

PART I.—RHYNCHOTA FROM THE TRANSVAAL,
MASHONALAND, AND BRITISH NYASALAND.

REDUVIIDÆ.

I have previously in these pages (*ante* vol. ii. p. 244) enumerated and described the COREIDÆ from the above localities. I now follow the same method with the REDUVIIDÆ.

HETEROPTERA FROM THE TRANSVAAL.

FAMILY REDUVIIDÆ.

SUB-FAMILY TRIBELOCEPHALINÆ.

Tribelocephala boschjesmana, Stål. Pienaars River (W. L. D.);
Lydenburg Distr. (Pret. Mus. and
Coll. Dist.)

SUB-FAMILY STENOPODINÆ.

Sastrapada baerensprungi, Stål. Pretoria (W. L. D.).
Oncocephalus annulipes, Stål. Pretoria (W. L. D.); Pienaars
River (W. L. D.); Rustenburg (W. L. D.).
,, *denticulatus*, Stål. Pretoria (W. L. D.); Pienaars
River (W. L. D.).
,, *caffer*, Stål. Pretoria (W. L. D.).
Thodelmus quinquespinosus, Fabr. Pretoria (W. L. D.).

SUB-FAMILY SALYAVATINÆ.

Petalochirus umbrosus, Herr. Schaeff. Barberton (Rendall).

SUB-FAMILY HOLOPTILINÆ.

Holoptilus vulpes, Stål. Lydenburg Distr. (Pret. Mus. and Coll.
Dist.).

Holoptilus lupus, Wallengr. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).
 „

SUB-FAMILY ACANTHASPINÆ.

Varus varius, Walk. Pretoria (W. L. D.); Johannesburg (Ross);
 Barberton (Rendall).

Reduvius tarsatus, Germ. Pienaars River (W. L. D.); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Edocla quadrisignata, Stål. Pretoria (W. L. D.); Johannesburg (Fry).

Acanthaspis nugax, Stål. Transvaal (W. L. D.); probably Pretoria.

„ *obscura*, Stål. Waterberg; Warm Baths (W. L. D.); Rustenburg (W. L. D.); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

„ *lurco*, Stål. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

„ *rubricosa*, Stål. Zoutpansberg (Kaessner).

„ *lydenburgi*, sp. n. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Cethera musiva, Germ. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Platyperis guttatipennis, Stål. Pretoria (Kaessner); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Phonergates bicoloripès, Stål. Pretoria (W. L. D.); Pienaars River (W. L. D.).

„ *concoloripes*, Reut. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

„ *basilicus*, Stål. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

„ *quadrimaculatus*, sp. n. Lydenburg Distr. (Krantz).

Cerilocus dohrni, Stål. Lydenburg Distr. (Krantz).

„ *parvus*, sp. n. Lydenburg Distr. (Krantz).

SUB-FAMILY PIRATINÆ.

Ectomocoris cruciger, Fabr. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Pirates æneicollis, Schaum. Pienaars River (W. L. D.).

„ *rubricosus*, Stål. Barberton (Rendall).

„ *lugubris*, Stål. Pretoria (W. L. D.); Rustenburg (W. L. D.).

„ *conspurcatus*, Dist. Pretoria (W. L. D.).

Sirthena africana, sp. n. Pretoria (W. L. D.).

SUB-FAMILY ECTRICHODINÆ.

- Physorhynchus crux*, Thunb. Pretoria (W. L. D.); Johannesburg (Ross); Barberton (Rendall); Lydenburg.
- „ *bigemmis*, Stål. Lydenburg.
- „ *patricius*, Stål. Pretoria (W. L. D.); Barberton (Rendall); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).
- „ *natalensis*, Stål. Pretoria (W. L. D.); Lydenburg Distr. (Zutrzenka).
- „ *crocatu*s, sp. n. Lydenburg Distr. (Krantz).

SUB-FAMILY HARPACTORINÆ.

- Leptodema ancanthocephala*, Carlini. Lydenburg (Krantz).
- Harpactor erythrocnemis*, Germ. Barberton (Rendall).
- „ *pulvisculatus*, Dist. Pretoria (W. L. D.); Johannesburg (Ross); Middelburg (W. L. D.).
- „ *segmentarius*, Germ. Pretoria (W. L. D.); Barberton (Rendall); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).
- „ *tristis*, Stål. Pretoria (W. L. D.); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).
- „ *albopunctatus*, Stål. Pretoria (W. L. D.); Barberton (Rendall) Zoutpansberg (Kaessner); Lydenburg Distr. (Krantz); Natal Frontier.
- „ *rapax*, Stål. Pretoria (W. L. D.); Barberton (W. L. D.).
- „ *puberulus*, Stål. Pretoria (W. L. D.).
- „ *paludatus* Dist. Lydenburg Distr. (Krantz).
- Callilestes bicolor*, Dist. Pretoria (W. L. D.).
- Cosmolestes insignis*, sp. n. Pretoria (W. L. D.).
- Hæmatochaeres longiceps*, Walk. Waterval Onder (Ross).
- Pantoleistes princeps*, Stål. Pretoria (W. L. D.); Natal Frontier.
- Coranus oblongiceps*, Stål. Pretoria (W. L. D.).
- Coranopsis vittata*, Horv. Pretoria (W. L. D.).
- „ *Rossi*, sp. n. Waterval Onder (Ross).
- Vitumnus scenicus*, Stål.
- Var. *sedulus*, Stål. Pretoria (W. L. D.).
- Var. *cinnabarinus*, Stål. Pretoria (W. L. D.); Barberton (Rendall); Waterberg (W. L. D.); Zoutpansberg (Kaessner).
- Var. *lydenburgus*, Dist. Lydenburg Distr. (Pret. Mus. and Coll. Dist.).
- Var. *scenicus*, Stål. Pretoria (W. L. D.); Barberton (Rendall); Lydenburg Distr. (Pret. Mus. and Coll. Dist.).

Var. *miniatus*, Stål. Pretoria (W. L. D.); Barberton (Rendall); Waterberg; Warm Baths (W. L. D.).

Var. *sobrinus*, Stål. Pretoria (W. L. D.); Lydenburg Distr. (Zutrzenka).

Var. *barbertonus*, Dist. Barberton (Rendall).

Var. *pretorius*, Dist. Pretoria (W. L. D.).

Nagusta subflava, sp. n. Pretoria (W. L. D.).

„ *junodi*, Montand. Natal Frontier.

Blapton ramentaceus, Germ. Pretoria (W. L. D.); Lydenburg Distr. (Krantz).

ACANTHASPIS LYDENBURGI sp. n.

Pale sanguineous; head from behind insertion of antennæ, its apex, and a subapical median line, antennæ, rostrum excluding base, anterior margin of pronotum, a broad transverse fascia at junction of anterior and posterior pronotal lobes, scutellum excluding apex, hemelytra, head beneath, median and posterior fasciæ to prosternum, the meso- and meta-sterna, posterior segmental margins to abdomen, spots to connexivum, coxæ, bases and apices of anterior and intermediate femora, the tibiæ and the whole of posterior legs, black; under surfaces of the anterior and intermediate tibiæ ochraceous; a submarginal fascia to mesosternum, a basal marginal linear spot and a large subapical spot to corium, pale sanguineous.

Anterior lobe of pronotum sculptured, but faintly and obsoletely centrally sulcate, posterior lateral pronotal angles subprominent and subnodulose; apex of scutellum tuberculously prominent; rostrum with the second joint a little longer than the first; femora unarmed; body pilose, especially the antennæ, legs, and under surface.

Long. 15 mm.; exp. pronot. angl. $4\frac{1}{2}$ mm.

Hab. Transvaal; Lydenburg District.

PHONERGATES QUADRIMACULATUS sp. n.

Pale sanguineous; head, four small spots on transverse constriction of pronotum, clavus and subclaval fascia—excluding bases of each, membrane, sternum—excluding lateral margins, coxæ, disks of basal and apical abdominal segments, and anal appendage black; antennæ and rostrum piceous-brown.

Allied to *P. basilicus* Stål, from which it differs by the more slender body, less produced and more rounded lateral pronotal angles, four spots to the pronotum, different colour of the corium, &c.

Long. 13 mm.

Hab. Transvaal; Lydenburg District.

CERILOCUS PARVUS, sp. n.

Black; a large ochraceous discal spot near inner angle of corium; body beneath and legs piceous-brown; antennæ excluding basal joint, rostrum, coxæ, tibiæ, tarsi, disk of metasternum, basal disk of abdomen, and small spots to connexivum brownish-ochraceous.

Pronotum with the anterior angles scarcely prominent; disk of both lobes longitudinally impressed, posterior lateral angles subprominent and rounded; basal joint of antennæ not quite reaching apex of head and about one-fourth the length of second joint; second joint of rostrum very slightly longer than first.

Long. 17 mm.; exp. pronot. angl. $4\frac{1}{2}$ mm.

Hab. Transvaal; Lydenburg District.

SIRTHENEA AFRICANA, sp. n.

Pronotum castaneous; hemelytra, ocelli, and eyes black; head, rostrum, basal angles of corium, apical margin of membrane, body beneath and legs ochraceous; lateral areas of sternum and abdomen, the whole of metasternum and anal segment of abdomen piceous; antennæ ochraceous, second joint and base of third joint piceous; anterior pronotal lobe longitudinally but irregularly sulcate, the sulcations piceous, the posterior lobe deeply foveate near lateral angles, posterior margin obscurely piceous; hemelytra opaque; legs finely pilose.

Long. 20 mm.

Hab. Transvaal; Pretoria (Distant).

PHYSORHYNCHUS CROCATUS, sp. n.

Reddish ochraceous; antennæ, eyes, hemelytra, lateral areas of meso- and meta-sterna and anal segment black; base of first joint of antennæ and basal angles of hemelytra reddish-ochraceous; pronotum concolorous, central sulcation profound, abdominal incisures deep and crenulate.

Long. 16-19 mm.

Hab. Transvaal; Lydenburg. East Africa; Mamboia.

COSMOLESTES INSIGNIS, sp. n.

Head, pronotum, scutellum, sternum, and legs piceous, thickly and brownly pilose; corium and abdomen beneath piceous-testaceous; abdomen thickly irrorated with small ochraceous spots, its sublateral margins piceous, connexivum above and beneath alternately ochraceous and black; membrane shining cupreous; posterior angular

margins and a central transverse basal fascia to pronotum, posterior central area united with spatulate apex of scutellum, basal angle of corium, coxal spots, and lateral margins of meso- and meta-sterna shining luteous; antennæ and rostrum piceous; posterior area of pronotum finely granulate and of a more brownish hue than the anterior lobe; scutellum foveate at base and broadly spatulate at apex; an ochraceous spot on sternum between the anterior and intermediate tibiæ; legs beneath more brownish than above and thickly pilose; margins of anal segment and a central fascia to same black.

Long. 13 mm.

Hab. Transvaal; Pretoria (Distant).

The unspotted head and pronotum render this species very distinct.

CORANOPSIS ROSSI, sp. n.

Pale sanguineous; head in front of eyes and its basal margin, antennæ, rostrum, anterior lobe of pronotum—excluding frontal and lateral margins—a transverse series of three spots to posterior pronotal lobe, basal and lateral margin of scutellum, membrane, and oblique lateral fascia to prosternum, meso- and meta-sterna, coxæ, legs, a submarginal series of transverse linear spots and anal segment to abdomen black; a spot near intermediate and posterior coxæ sanguineous; apical margin of membrane fuliginous and passing abdominal apex; body and legs pilose.

Long. 11 mm.

Hab. Transvaal; Waterval Onder (A. Ross).

VITUMNUS SCENICUS.

Vitumnus scenicus, Stål, Hem. Afr. iii. p. 69 (1865).

Var. *a.* *Harpactor sedulus*, Stål, Öfv. Vet.-Ak. Förh., 1855, p. 41, 6.

Hab. Transvaal; Pretoria.

Var. *b.* *Harpactor cinnabarinus*, Stål, Öfv. Vet.-Ak. Förh., 1855, p. 41, 1.

Reduvius sertus, Dist. Nat. in Transv. Append., p. 254, pl. 11, f. 8 (1892).

Hab. Transvaal; Pretoria (W. L. D.); Barberton (Rendall); Warm Baths, Waterberg Distr. (W. L. D.); Zoutpansberg (Kaessner).

Var. *c.* *lydenburgus*, var. n.

Sanguineous; head, antennæ, rostrum, central longitudinal fascia to anterior lobe of pronotum, scutellum, clavus, excluding base,

membrane, spots to connexivum, sternum, legs, segmental margins, sublateral fasciæ, and apex of abdomen black; head beneath and with a large spot above between eyes, sanguineous.

Hab. Transvaal; Lydenburg Distr. (Pret. Mus.).

Var. *d.* *Harpactor scenicus*, Stål, Öfv. Vet.-Ak. Förh., 1855, p. 41, 4.

Reduvius capitatus, Dist. Nat. in Transv. Append., p. 255, pl. 11, f. 1 (1892).

Hab. Transvaal; Pretoria (W. L. D.); Barberton (Rendall); Lydenburg Distr. (Pret. Mus.).

Var. *c.* *Harpactor miniatus*, Stål, Öfv. Vet.-Ak. Förh., 1855, p. 41, 2.

Hab. Transvaal; Pretoria (W. L. D.); Barberton (Rendall); Warm Baths, Waterberg Distr. (W. L. D.).

Var. *d.* *Harpactor sobinus*, Stål, Öfv. Vet.-Ak. Förh., 1855, p. 41, 3.

Reduvius negamicus, Walk., Cat. Het., vii., p. 191, n. 38 (1873).

Hab. Transvaal; Pretoria; Lydenburg Distr. (Zutrzenka).

Var. *c.* *barbertonus*, var. n.

Black; head beneath, spot between eyes, rostrum, excluding apex, and legs ochraceous; antennæ piceous, basal joint brownish-ochraceous; tarsi piceous.

Hab. Transvaal; Barberton (Rendall).

Var. *f.* *pretorius*, var. n.

Piceous, greyishly pilose; head beneath, spot between eyes, rostrum, excluding apex, disk of sternum, abdomen, and legs ochraceous; apex of abdomen, apices of tibiæ, and the tarsi piceous.

Hab. Transvaal; Pretoria.

NAGUSTA SUBFLAVA, sp. n.

Above pale ochraceous, or brownish-ochraceous; body beneath, legs, rostrum, and antennæ luteous; sternum hoary, pilose; membrane scarcely passing the abdominal apex; pronotum with the anterior lobe sulcate, the posterior lobe finely granulate, the lateral spines slightly directed upward; scutellum with a very distinct central basal impression.

Long. 14 mm.

Hab. Transvaal; Pretoria (Distant).

HETEROPTERA FROM MASHONALAND.

(COLLECTED BY MR. G. A. K. MARSHALL.)

FAMILY REDUVIIDÆ.

SUB-FAMILY EMESINÆ.

Stenolæmus marshalli, sp. n. Umfuli River.

SUB-FAMILY STENOPODINÆ.

Oncocephalus annulipes, Stål. Salisbury.*Thodelmus quinquespinosus*, Fabr. Salisbury.

SUB-FAMILY SALYAVATINÆ.

Lisarda cænosa, Stål. Salisbury.*Petalochirus umbrosus*, Herr. Schaeff. Umfuli River.

SUB-FAMILY ACANTHASPINÆ.

Varus flavoannulatus, Stål. Salisbury.*Reduvius tarsatus*, Germ. Salisbury.,, *mashonæ*, sp. n. Salisbury.*Edocla quadrisignata*, Stål. Umfuli River.*Acanthaspis curvidens*, sp. n. Salisbury.*Cethera musiva*, Germ. Salisbury.*Phonergates bicoloripes*, Stål. Salisbury.,, *concoloripes*, Reut. Salisbury.*Cerilocus bicolor*, sp. n. Salisbury.

SUB-FAMILY PIRATINÆ.

Pirates lugubris, Stål. Salisbury.

SUB-FAMILY ECTRICHODINÆ.

Physorhynchus patricius, Stål. Salisbury.,, *principalis*, sp. n. Salisbury.

SUB-FAMILY APIOMERINÆ.

Cleontes genitus, sp. n. Umfuli River.

SUB-FAMILY HARPACTORINÆ.

Leptodema acanthocephala, Carlini. Umfuli River.

Loptodytes mashonæ, sp. n. Umfuli River.

Harpactor erythrocnemis, Germ. Salisbury.

„ *pulvisculatis*, Dist. Salisbury.

„ *segmentarius*, Germ. Salisbury.

„ *tristis*, Stål. Salisbury, Umfuli River.

„ *albopunctatus*, Stål. Salisbury, Umfuli River.

„ *violentus*, Germ. Salisbury, Umfuli River.

„ *rapax*, Stål. Salisbury.

Sphyrdrinus venans, Stål. Salisbury.

Callilestes stigmatellus, Dist. Salisbury.

Pantoleistes princeps, Stål. Salisbury.

Phonoctonus formosus, Dist. Salisbury.

Coranus carbonarius, Stål. Salisbury.

„ *oblongiceps*, Stål. Salisbury.

Coranopsis vittata, Horv. Salisbury.

Vitumnus scenicus, Stål.

Var. *cinnabarinus*, Stål. Salisbury.

Var. *scenicus*, Stål. Salisbury.

Var. *miniatus*, Stål. Salisbury.

Var. *sobrinus*, Stål. Salisbury.

Var. *mashonus*, Dist. Salisbury.

Var. *salisburyanus*, Dist. Salisbury.

Var. *rhodesianus*, Dist. Salisbury.

Nagusta albata, sp. n. Salisbury.

STENOLEMUS MARSHALLI, sp. n.

Brownish-ochraceous; antennæ annulated with luteous; pedunculate portion of the head, posterior margin of the pronotum, hemelytra, numerous annulations to anterior legs and to intermediate and posterior femora, a subbasal annulation to intermediate and posterior tibiæ, luteous; hemelytra spotted with brown, the spots consisting of a small one near apex of clavus, and two discal, the anterior one largest and containing a pale vein, apical margins of the same colour spotted with white; pedunculate portion of head a little shorter than remaining portion; pronotum convex, the anterior area obscurely centrally carinate; body, legs, and antennæ longly pilose—abdomen mutilated.

Long. 12 mm.

Hab. Mashonaland; Umfuli River (G. A. K. Marshall).

REDUVIUS MASHONÆ, sp. n.

Head and eyes black; antennæ piceous; pronotum brownish-ochraceous, the basal area of the anterior lobe black; scutellum piceous; corium brown, basal angle, claval apex and a rounded spot on each side of same, posterior lateral margin, and apical margin, obscure ochraceous; membrane brown, somewhat paler at base and apex; connexivum luteous with elongate black spots; body beneath brown, lateral margins and a central line to abdomen luteous, lateral margins with large transverse black spots; legs luteous, subapical and apical annulations to femora, base, apices, and a median annulation to tibiæ, and apices of tarsi piceous.

Anterior lobe of pronotum profoundly centrally sulcated, posterior lobe finely punctate, posterior lateral angles shortly tuberculously spinous.

Long. 16–17 mm.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

Allied to *R. labeculatus*, Dist., but with the pronotum much less furrowed.

ACANTHASPIS CURVIDENS, sp. n.

Head, rostrum, pronotum, scutellum, sternum, and legs dull reddish-ochraceous; connexivum and abdomen beneath stramineous; corium and membrane black; base of corium reddish-ochraceous.

Anterior lobe of pronotum strongly furrowed, posterior lobe with its disk rugulose, the lateral angles strongly spinously produced and directed backward; legs moderately pilose; antennæ mutilated.

Long. 18 mm.; exp. pronot. angl. 6 mm.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

CERILOCUS BICOLOR, sp. n.

Reddish-ochraceous; eyes, corium, and membrane black; connexivum stramineous much suffused with piceous; basal lateral areas of abdomen beneath piceous.

Anterior angles of pronotum nodulosely prominent, disks of anterior and posterior lobes longitudinally impressed, lateral posterior angles subprominent, subnodulose, and rounded; basal joint of antennæ not quite reaching apex of head, and about one-fourth the length of second joint; rostrum with the first and second joints subequal in length.

Long. 23½ mm.; exp. pronot. angl. 7 mm.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

PHYSORHYNCHUS PRINCIPALIS, sp. n.

♀. Head, pronotum, scutellum, and sternum reddish-ochraceous; abdomen sanguineous; hemelytra, legs, abdominal incisures, and stigmatal areas black; tarsi brownish-ochraceous; basal joint of antennæ black, remainder mutilated; abdomen above with a small black spot on the lateral area of each abdominal segment. Pronotum concolorous, the longitudinal incision fine, but not reaching the base of posterior lobe, longitudinally foveate near posterior angles; scutellum foveate on disk; body very elongate, hemelytra almost reaching abdominal apex.

Long. 35 mm.

Hab. Mashonaland; Salisbury (G. A. K. Marshall); Orange River Colony (South African Museum).

CLEONTES GENITUS sp. n.

Luteous; head, antennæ, anterior lobe of pronotum, anterior tibiæ, membrane, and rostrum black; corium, base of membrane, apical area of connexivum, and abdomen beneath reddish-ochraceous; connexivum above and beneath, excluding apical area, pale stramineous; distinctly pilose, especially the lateral margins of head, pronotum and abdomen, and legs; posteriorly produced posterior margin of pronotum profoundly concave.

Long. 15 mm.

Hab. Mashonaland; Umfuli River (G. A. K. Marshall).

LOPODYTES MASHONÆ sp. n.

Head, antennæ, anterior lobe of pronotum, scutellum, and legs pale castaneous; posterior lobe of pronotum, corium, membrane, and prosternum pale ochraceous; body beneath thickly greyish pilose; above moderately pilose; head, antennæ, and legs longly pilose; corium and posterior legs more or less greyish tomentose; pronotum with the anterior lobe tuberculate at anterior angles, and quadrituberculate at the posterior transverse incision; posterior lobe longitudinally foveate and with a distinct central longitudinal carination, lateral areas also foveate; membrane about reaching the base of the sixth abdominal segment.

Long. 19 mm.

Hab. Mashonaland; Umfuli River (G. A. K. Marshall).

VITUMNUS SCENICUS.

Vitumnus scenicus, Stål, Hem. Afr. iii. p. 69 (1865).

Var. *mashonus*, var. n.

Reddish-ochraceous; spot behind eyes, antennæ, apex of rostrum, posterior lobe of pronotum, scutellum, claws, membrane, spots to connexivum, marginal sternal and abdominal spots and striæ, apices of tibiæ, and the tarsi black; posterior abdominal segmental margins, pale luteous.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

Var. *salisburyanus*, var. n.

Black; anterior lobe of pronotum, and head entirely or in part, sanguineous.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

Var. *rhodesianus*, var. n.

Resembling var. *salisburyanus*, but with the legs sanguineous.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

NAGUSTA ALBATA, sp. n.

Pale reddish-brown; rostrum, coxæ, and legs luteous; body beneath cretaceous-white, margins of sternum and abdomen reddish-brown, abdomen with a central luteous line; first joint of antennæ castaneous, remaining joints mutilated. Pronotum with the anterior lobe centrally sulcate, the posterior lobe finely granulate, the lateral spines directed a little upward and backward; membrane pale ochraceous, semihyaline, passing the abdominal apex; anterior femora somewhat strongly incrassate; legs pilose.

Long. 15 mm.

Hab. Mashonaland; Salisbury (G. A. K. Marshall).

HETEROPTERA FROM BRITISH NYASALAND.

(COLLECTED BY DR. PERCY RENDALL.)

FAMILY REDUVIIDÆ.

SUB-FAMILY STENOPODINÆ.

Pygolampis nyasæ, Dist. Fort Johnston.

SUB-FAMILY SALYAVATINÆ.

Petalochirus umbrosus, Herr. Schaeff. Fort Johnston.

SUB-FAMILY ACANTHASPINÆ.

Reduvius tarsatus, Germ. Fort Johnston.

SUB-FAMILY PIRATINÆ.

Ectomocoris cruciger, Fabr. Zomba.

„ *maculicrus*, Fairm. Zomba.

Pirates rendalli, sp. n. Zomba.

SUB-FAMILY HARPACTORINÆ.

Harpactor erythrocnemis, Germ. Fort Johnston.

„ *segmentarius*, Germ. Fort Johnston.

„ *paludatus*, sp. n. Fort Johnston.

Sphyrinus venans, Stål. Fort Johnston.

Cosmolestes pictus, Klug. Fort Johnston.

Vitumnus scenicus, Stål.

Var. *sobrinus*, Stål. Zomba.

Margasus opulentus, sp. n. Fort Johnston.

PIRATES RENDALLI, sp. n.

Black ; head, pronotum, and scutellum shining with an olivaceous hue, corium dull opaque, membrane levigate ; apex of rostrum castaneous. Anterior lobe of pronotum longitudinally excavate ; anterior and intermediate femora distinctly spined beneath ; legs somewhat longly pilose.

Allied to the West African *P. spinipes*, Serv., but differing by the opaque and scarcely ridged corium.

Long. 23 mm.

Hab. British Nyasaland ; Zomba (P. Rendall).

HARPACTOR PALUDATUS, sp. n.

Reddish-ochraceous ; antennæ, rostrum, eyes, apical area of head, a large spot behind eyes, two longitudinal discal fasciæ to pronotum—widened posteriorly but not reaching the posterior margin, scutellum, excluding basal spot, a sub-claval streak and membranous margin of corium, head beneath, sternum, legs, and margins of abdominal

segments black; acetabula, lateral margins of sternum, posterior margin of prosternum, and biannulations to first and second joints of antennæ reddish-ochraceous, third and remaining joints of antennæ castaneous; first and second joints of rostrum about equal in length or first slightly the longest; body and legs moderately pilose; membrane brownish-ochraceous, its basal margin irregularly black; anterior lobe of pronotum centrally sulcate, posterior lobe entire; ante- and postocular areas of head about equal in length.

Long. $11\frac{1}{2}$ –16 mm.

Hab. Nyasaland; Fort Johnston (Rendall); Transvaal; Lydenburg District (Pret. Mus. and Coll. Dist.).

MARGASUS OPULENTUS, sp. n.

Head, rostrum, antennæ, tibiæ, and tarsi castaneous; pronotum, cerium, and sternum ochraceous densely pilose; connexivum ochraceous, glabrous; lateral angles and posterior margin of pronotum, and a large subquadrate spot on the first four segments of the connexivum shining indigo-blue; membrane shining, brassy-green; abdomen beneath shining olivaceous-green; anterior and intermediate femora shining olivaceous-green, their apices castaneous; posterior femora castaneous with a subapical olivaceous-green annulation; coxæ and trochanters dark castaneous. Basal joint of antennæ about as long as head and pronotum together; second and third joints together shorter than the first; head a little shorter than pronotum; lateral pronotal angles a little prominent and obtusely angulated.

Long. 30 mm.; exp. pronot. angl. 8 mm.

Hab. Nyasaland; Fort Johnston (Dr. P. Rendall).

PART II.—DESCRIPTIONS OF VARIOUS ETHIOPIAN SPECIES.

FAMILY LYGÆIDÆ.

AULACOPELTUS MINOR, sp. n.

Reddish-ochraceous ; head, antennæ, membrane, legs, rostrum, basal angles of head beneath, and large irregular lateral sternal spots, black ; abdomen beneath piceous.

Allied to the only other described species of the genus *A. excavatus*, Fabr., from which it differs by the less produced posterior angles of the pronotum, by the somewhat broader and less elongate pronotum, different colour of the head, smaller size, and paler colouration.

Long. 14 to 16 mm.

Hab. British Nyasaland ; Zomba (K. J. Cameron).

Var. Abdomen beneath pale sanguineous, its lateral margins and apex piceous.

FAMILY REDUVIIDÆ.

SUB-FAMILY ACANTHASPINÆ.

CENSORINUS, gen. nov.

Body elongate ; ocelli situate between the posterior areas of eyes ; first joint of antennæ about as long as head and considerably passing its apex, second joint about twice as long as first ; second joint of rostrum longer than first joint ; pronotum with the anterior and posterior lateral angles spinously produced, anterior lobe armed with two long spines, posterior lobe with two shorter discal spines near posterior margin ; scutellum with a long, obliquely erect apical spine ; connexivum with the posterior segmental angles prominently produced ; legs slender, pilose, anterior femora not incrassated, posterior legs with the tibiæ a little longer than the femora, abdomen beneath with a distinct central longitudinal ridge.

Allied to *Centrogonus* Bergr. = *Vellejus* Stål (nom. præoc.).

CENSORINUS FERRUGINEUS, sp. n.

Dull ochraceous ; head in front of eyes, a central and two lateral striæ behind eyes, some irregular spots and the discal spines to

anterior pronotal lobe, longitudinal striæ on anterior margin, a spot near lateral angles and a basal fascia to posterior lobe, disk of scutellum and base of apical spine, veins and scattered irregular spots to corium and membrane, spots to connexivum, head and body beneath, rostrum, legs and antennæ black; base of first antennal joint, base and apex of second joint, bases and subapical annulations to femora, subbasal and subapical annulations to tibiæ, tarsi, acetabula, and marginal spots to abdomen, ochraceous. Head centrally, longitudinally sulcate; pronotum with the anterior spines short, suberect, the discal spines to anterior lobe long, erect, the lateral angles strongly laterally, spinously produced, the discal spines to posterior lobe a little directed backward; membrane passing abdominal apex; legs and antennæ distinctly and longly pilose.

Long. 25 mm.; exp. pronot. angl. 7 mm.

Hab. Madagascar (Cowan).

TIMOTHEUS, gen. nov.

Head robust, anteocular and postocular portions about equal in length, the disk tumid, a distinct transverse impression between eyes; rostrum robust, first joint much shorter than second, antennæ mutilated; pronotum with the lobes almost equal in length, but anterior lobe narrowest, subglobose, sculptured, its anterior angles tubercularly prominent, posterior lobe gradually widened, lateral angles subprominent, posterior margin strongly concave; scutellum trispinous—a long suberect spine at each basal angle, and a similar spine at apex; corium about half as long as abdomen; membrane large; connexivum suberect; anterior and intermediate femora moderately incrassate.

Allied to *Platymiris*.

TIMOTHEUS PERINGUEYI, sp. n.

Sanguineous; head, rostrum, anterior pronotal lobe, a central fascia, an elongate spot near each lateral angle, and posterior lateral margins of posterior pronotal lobe, scutellum, a central spot to corium, spots to connexivum above and beneath, anterior area of prosternum, meso- and meta-sterna—excluding lateral margins, abdominal segmental margins, and legs black; clavus, posterior portion of claval margin, and the membrane opaque piceous; body and legs pilose; anterior lobe of pronotum excavate, posterior lobe rugulose.

Long. 12 mm.; exp. pronot. angl. $3\frac{1}{2}$ mm.

Hab. Cape Colony; O'okiep. (Type in S. African Museum.)

KHAFRA MODESTA, sp. n.

Black; head, rostrum, basal joint of antennæ (remainder mutilated), a large spot on each side of anterior lobe of pronotum, scutellum, excluding apex, coxæ, legs, anal segment of abdomen, and some elongate spots on apical half of connexivum, dull castaneous; femora irregularly marked with piceous, a subapical annulation being most distinct; tibiæ with the base and a very obscure central annulation, piceous.

Pronotum with the posterior lateral angles spinously subprominent; scutellar spine long, robust, directly upward and backward; abdomen beneath finely transversely striate.

Long. 25 mm.; exp. pronot. angl. $7\frac{1}{2}$ mm.

Hab. Nyasaland (Farler).

PHONERGATES NIGRIVENTRIS, Schout.

Dull black; head, pronotum, scutellum, lateral margins of sternum, and anterior and intermediate femora, dull red; a transverse spot between eyes, two spots near anterior margin of posterior pronotal lobe, apex of scutellum, and apices of anterior and intermediate femora black; antennæ fuscous.

Long. 12 to 14 mm.; exp. pronot. angl. $3\frac{1}{2}$ to 4 mm.

Hab. East Africa; Nyasa, Mamboia (Coll. Dist.); Congo.

Var. Scutellum black, with its apex red; femora entirely black.

In the typical form described by Schouteden the scutellum is entirely red.

SUB-FAMILY PIRATINÆ.**PIRATES EREBUS, sp. n.**

Body above and beneath piceous-brown; antennæ, rostrum, coxæ, and legs dull dark ochraceous; eyes, ocelli, and an oblong spot to corium near apex of clavus, pale stramineous. Anterior lobe of pronotum centrally sulcate, its lateral areas irregularly striate; lateral margins of abdomen beneath sometimes brownish-ochraceous.

Long. 23 mm.

Hab. Madagascar (Cowan); Antananarivo.

SUB-FAMILY ECTRICHODINÆ.**HEXAMEROCERUS JUNODI, sp. n.**

Metallic olivaceous-green; hemelytra black, opaque, with a whitish transverse spot near centre; connexivum above and beneath

spotted with ochraceous at the first, second, third, fifth, and sixth segments; antennæ glossy piceous, first joint, excluding base and apex, luteous; legs shining black; bases and apices of femora, and the tarsi, luteous; apices of tarsi fuscous; head, pronotum, and body beneath coarsely punctate, sub-granulate; femora prominently spined beneath; antennæ with the second joint rather longer than the third and fourth joints together.

Long. 12 mm.

Hab. Delagoa Bay (Junod).

PHYSORHYNCHUS ABBREVIATUS, sp. n.

♀. Black; central fascia to head from between eyes, pronotum—excluding black cruciform sulcation, apical prolongations to scutellum, basal angles of hemelytra, lateral margins of connexivum, lateral margins of sternum and abdomen beneath, legs, a large central triangular spot to second abdominal segment, a larger subquadrate spot to third segment, and two small central spots to fourth segment, ochraceous; coxæ, trochanters, a basal suffusion to femora beneath, extreme apices of femora and tibiæ, and extreme bases of tibiæ black; antennæ mutilated; pronotum impunctate, somewhat crenulate on transverse constriction, the central sulcation broadened and foveate on disk, foveately impressed near the lateral angles; hemelytra abbreviated, only reaching the base of fifth abdominal segment; connexivum excluding margin, finely transversely rugulose, abdomen above finely and irregularly transversely striate; body beneath glabrous, anterior margins of second, third, fourth, and fifth abdominal segments more or less crenulate.

Long. ♀ 34 mm.

Hab. East Africa; Mpwapwa.

PHYSORHYNCHUS COSTALIS, sp. n.

Head, scutellum, and body beneath metallic indigo-black; hemelytra black; anterior area of head, rostrum, pronotum, basal angles of hemelytra and clavus, lateral margins of hemelytra—broadly, margins of sternum and abdomen beneath, anal segment of abdomen, and legs reddish-ochraceous; connexivum, posterior legs, and apical margin to abdomen, ochraceous; antennæ, transverse pronotal constriction and central sulcation to anterior lobe, and spots to connexivum, black; anterior pronotal lobe distinctly, posterior lobe obsoletely punctate; scutellum rugose;

membrane ♂ reaching apex of abdomen; antennæ with the first and second joints fuscous, first joint reddish-ochraceous at base; remaining joints mutilated.

Long. 16 mm.

Hab. British East Africa; Nengia.

PHYSORHYNCHUS SPLENDENS, sp. n.

Head, anterior lobe of pronotum, and scutellum pale sanguineous; antennæ, rostrum, posterior lobe of pronotum, and legs shining black; hemelytra black opaque; connexivum and abdomen beneath shining indigo-black; bases of tibiæ very narrowly, and the tarsi brownish-ochraceous; pronotal central sulcation deep, foveate, not extending far on the posterior lobe; extreme apex of head black, ochraceous on each side; anterior femora inwardly brownish-ochraceous; legs prominently pilose.

Long. 13 mm.

Hab. Delagoa Bay (Junod).

SUB-FAMILY HARPACTORINÆ.

SPHEDANOLESTES SINGULARIS, sp. n.

Reddish-ochraceous; head, antennæ, rostrum, and tibiæ black; femora pale brownish, biannulated with luteous, their bases, the coxæ, and trochanters, reddish-ochraceous; disk of abdomen pale luteous with three large black ringlets on each side situate on the third, fourth, and fifth abdominal segments; membrane pale bronzy; post-ocular portion of head a little longer than ante-ocular portion; first joint of rostrum shorter than second joint; connexivum well developed in ♀, its margin lobately sinuate; posterior pronotal angles subprominent and broadly rounded.

Long. ♂ and ♀ 14–16 mm.

Hab. Madagascar; Fianarantsoa.

VITUMNUS SCENICUS.

Vitumnus scenicus, Stål, Hem. Afr. iii. p. 69 (1865).

Var. *nyasanus*, var. n.

Head, anterior lobe of pronotum, rostrum, prosternum, coxæ, trochanters, and legs sanguineous; posterior lobe of pronotum and corium, stramineous; antennæ, a triangular spot behind eyes, two very large spots to posterior pronotal lobe, scutellum, clavus,

membrane, some lateral and central sternal spots, abdomen beneath, apices of tibiæ and the tarsi, black ; apex of abdomen sanguineous.

Hab. British Nyasaland.

MARGASUS MAURUS, sp. n.

Head, rostrum, and legs sanguineous ; corium, connexivum, abdominal margin, apex of anterior tibiæ, intermediate and posterior femora—excluding apices, intermediate and posterior tibiæ—excluding bases, black ; pronotum, scutellum, base of corium, and body beneath luteous ; membrane pale bronzy ; antennæ with the first and second joints black, remainder mutilated. Anterior lobe of pronotum tuberculously rugose with four prominent spinous tubercles, two discal and one on each lateral margin, posterior lobe with two longer and more slender discal spinous tubercles, the lateral angles also spinously produced ; scutellum foveate at base, its apex not produced ; femora a little nodulose, more prominently so near apices.

Long. 18 mm. ; exp. pronot. angl. 5 mm.

Hab. Madagascar ; Fianarantsoa.

IV.—*Descriptions of Six new Perciform Fishes from the Coast of Natal.*—By G. A. BOULENGER, F.R.S.

MR. J. F. QUEKETT, Curator of the Durban Museum, has sent me for identification a large series of fishes from the Coast of Natal. The fishes from that coast have received but little attention, and it is therefore not surprising that several specimens contained in the Collection have proved to belong to undescribed species. I have already described one,* a Galeid Selachian, under the name of *Scylliogaleus queketti*. Mr. Alex. Anderson, of Durban, who takes a great interest in the fishes in which he deals, and who brought the fishes over with him on a recent visit to England, informed me that the specimens were mostly procured from deep water, about 40 fathoms. It so happens, however, that the little Dog-fish, which I described as from that depth, was obtained from the rocks at the River Umkomaas, as I am now informed by Mr. Quekett. The perciform fishes here described are probably all from deep water.

The specimens here figured have been presented to the British Museum, along with many others, by Mr. Quekett.

DINOPERCA QUEKETTL. (Plate II.)

Depth of body $2\frac{2}{5}$ times in total length, length of head 3 times. Upper profile of head descending in a nearly straight line; lower jaw projecting; snout as long as or a little longer than the diameter of the eye, which is $3\frac{1}{2}$ to 4 times in length of head; interorbital width 4 times in length of head; maxillary extending to below the centre of the eye, the width of its distal extremity $\frac{3}{5}$ to $\frac{3}{4}$ the diameter of the eye; supramaxillary bone narrow; both jaws with a broad band of minute villiform teeth and an outer series of

* Ann. and Mag. N.H. (7) x. 1902, p. 51, pl. iv.

rather large conical teeth; a triangular patch of vomerine teeth and a moderately broad band of palatine teeth; præopercular border rounded, feebly serrated; two small, indistinct opercular spines; head densely scaled, with the exception of the end of the snout, the lips, and the lower jaw. Gill-rakers about as long as the gill-fringes, 27 or 28 on lower part of anterior arch; pseudobranchiæ very large. Dorsal XI 18, originating above axilla; spines weak, fourth and fifth and eleventh longest, $\frac{1}{4}$ or $\frac{2}{7}$ the length of the head, $\frac{2}{3}$ the length of the longest soft rays; the soft dorsal densely scaled, high and pointed in front, with slightly concave border. Anal III 13, opposed to soft dorsal and similar in shape; spines rather feeble, graduated, first very short, third twice as long as second and as long as longest dorsal. Pectoral very asymmetrical, obtusely pointed, $\frac{2}{3}$ length of head; ventral quite as long, reaching vent. Caudal slightly emarginate. Caudal peduncle $1\frac{1}{2}$ as long as deep. Scales $85\frac{1}{2}$, strongly ctenoid, with smaller ones between them; lateral line very indistinct, on about 55 scales. Blackish-brown; maxillary and cheek lighter, greyish-brown, with a blackish oblique streak from the præorbital to the angle of the præopercle.

This species is described from two specimens. The larger measures 410 mm., the smaller 250.

It is evidently closely related to the fish from the Mekran Coast and Sind, described by Day as *Hapalogenys petersi*, and for which I have proposed the genus *Dinoperca*. It differs in the absence of the barbel-like papillæ about the lips which caused the Indian species to be referred to *Hapalogenys*; also in the higher dorsal and anal fins, the shape of the body and fins, and, apparently, in the larger scales above the lateral line, Day having given the number as about 100.

EPINEPHELUS GRAMMATOPHORUS. (Plate III.)

Teeth in narrow bands, in two series on the sides of the mandible; canines strong. Depth of body 3 to $3\frac{2}{5}$ times in total length, length of head $2\frac{2}{3}$ to $2\frac{3}{4}$ times. Snout as long as diameter of eye, which is 4 to $4\frac{1}{2}$ times in length of head; interorbital width $5\frac{1}{2}$ to 6 times in length of head; lower jaw projecting; maxillary extending to below posterior border of eye, the width of its distal extremity $\frac{3}{5}$ to $\frac{2}{3}$ diameter of eye; serræ at angle of præopercle slightly enlarged; opercular spines equidistant, lower much further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked. Gill-rakers nearly as long as gill-fringes, 15 on lower part of anterior arch. Dorsal XI 17, originating above

base of pectoral; third and fourth spines longest, nearly half length of head; last spine $\frac{2}{3}$ to $\frac{1}{3}$ length of head, and a little shorter than longest soft rays. Pectoral nearly $\frac{2}{3}$ length of head; ventral shorter. Anal III 8; second and third spines equal, $\frac{2}{7}$ length of head; longest soft rays nearly half length of head. Caudal rounded. Scales ciliated, 85-95 $\frac{10}{40}$; lateral line 65-70. Pinkish-brown; head with dark brown spots, vermiculations, and oblique lines; a dark brown streak along the maxillary; fins greyish.

Total length 330 mm.

Two specimens.

This species bears some resemblance to *E. morrhua*, C. and V., from which it differs principally in the higher number of soft dorsal rays, the rounded caudal fin, and the larger scales.

EPINEPHELUS ALBOMARGINATUS. (Plate IV.)

Teeth in narrow bands, in two series on the sides of the mandible; canines strong. Depth of body nearly equal to length of head, 3 times in total length. Snout as long as the eye, which is 4 times in length of head; interorbital width $4\frac{1}{2}$ times in length of head; lower jaw projecting; maxillary extending to below posterior border of eye, the width of its distal extremity $\frac{3}{8}$ the diameter of the eye; 3 to 5 enlarged serræ at the angle of the præopercle; middle opercular spine nearer lower than upper, lower much further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked. Gill-rakers as long as gill-fringes, 13 or 14 on lower part of anterior arch. Dorsal XI 14, originating above base of pectoral; third to fifth spines longest, $\frac{1}{3}$ length of head, a little shorter than the soft rays. Pectoral $\frac{3}{4}$ length of head, scarcely longer than the ventrals. Anal III 8; third spine longest, $\frac{2}{7}$ length of head; longest soft rays nearly half length of head. Caudal rounded, subtruncate. Scales ciliated, 110-120 $\frac{18-20}{50}$; lat. l. 65. Reddish-brown, covered with numerous small round blackish spots; belly whitish, unspotted; pectorals uniform yellow; other fins dark grey-brown, edged with white, the dorsal and caudal with more or less distinct round black spots at the base.

Total length 290 mm.

Two specimens.

Most nearly related to *E. præopercularis*, Blgr., which has the third anal spine shorter, fewer scales between the dorsal spines and the lateral line, and a different colouration.

EPINEPHELUS ANDERSONI. (Plate V.)

Teeth in narrow bands, in two series on the sides of the mandible; canines feeble. Depth of body $4\frac{1}{3}$ times in total length, length of head 3 times. Snout $4\frac{1}{3}$ times in length of head, diameter of eye and interorbital width 6 times; lower jaw projecting; maxillary extending beyond vertical of posterior border of eye, the width of its distal extremity $\frac{2}{3}$ diameter of eye; serræ at angle of præopercle scarcely enlarged; lower opercular spine nearer median and a little further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked.* Dorsal XI 15, originating above upper opercular spine; third and fourth spines longest, $\frac{1}{3}$ length of head, last spine $\frac{2}{7}$ length of head, longest soft rays $\frac{2}{5}$. Pectoral $\frac{3}{5}$ length of head; ventral shorter. Anal III 8; second and third spines equal, not quite $\frac{1}{4}$ length of head; longest soft rays nearly $\frac{1}{2}$ length of head. Caudal rounded. Scales cycloid, $110\frac{17}{16}$; lateral line 78. Pale purplish-brown, with large round dark brown spots forming seven longitudinal series on each side; two oblique dark streaks on each side of the head, from the eye to the opercle; dorsal fin with large round dark spots.

Total length 370 mm.

A single specimen.

The fish I have the pleasure of naming after Mr. Alexander Anderson, of Durban, bears most resemblance to the young of *E. tauvina*, Forsk. It differs, apart from the colouration, in the narrower interorbital region, the cycloid scales, and the lesser depth of the body.

DENTEX LINEOPUNCTATUS. (Plate VI.)

Depth of body $2\frac{1}{3}$ times in total length, length of head 3 times. Forehead slightly gibbose; length of snout equal to diameter of eye, and to interorbital width, $\frac{1}{3}$ length of head; least depth of præorbital $\frac{3}{4}$ diameter of eye; jaws equal in front, upper extending to below anterior fifth of eye; canine teeth strong; interorbital region covered with scales; 7 series of scales on the cheek, between the suborbital region and the præopercle; a patch of small scales on the suborbital region, which is otherwise wholly naked. Dorsal XII 10, originating above base of pectoral; fourth to sixth spines longest, not quite $\frac{1}{2}$ length of head, second and twelfth spines as long as soft rays, $\frac{1}{3}$ length of head. Anal III 8; spines very strong, second longest, longer than soft rays, $\frac{1}{3}$ length of head. Pectoral falciform, as long as head,

* The gill-arches not present in the original specimen.

reaching origin of anal. Ventral $\frac{2}{3}$ length of head, reaching vent. Caudal deeply emarginate, angularly notched. Scales very feebly denticulated, 53 $\frac{7}{17}$. Red, the upper half of the body with 6 longitudinal series of purplish dots; these dots distributed more irregularly on the occiput and nape.

Total length 320 mm.

A single specimen.

Closely allied to *D. argyrozona*, C. and V. Distinguished by the larger eye, the shorter body, the fewer series of scales on the cheek, and the colouration.

PAGRUS NIGRIPINNIS. (Plate VII.)

Depth of body $2\frac{2}{3}$ times in total length, length of head 3 times. Forehead slightly humped, interorbital region broad and flat; length of snout $2\frac{1}{2}$ times in length of head, diameter of eye $4\frac{1}{2}$ times, interorbital width 3 times; least depth of præorbital equal to diameter of eye; jaws equal in front, upper extending to below anterior border of eye; canine teeth strong, 4 in each jaw; a single series of large molar teeth; interorbital region, occiput, cheek, and gill-cover densely covered with small strongly imbricate scales; these scales form 16 series on the cheek. Dorsal XII 10, originating above base of pectoral; third to fifth spines longest, $\frac{2}{3}$ length of head, twelfth shorter than the soft rays, which measure $\frac{1}{3}$ length of head. Anal III 8, second and third spines equal, strong, nearly as long as the soft rays, $\frac{1}{3}$ length of head. Pectoral falciform, as long as head, reaching beyond origin of anal. Ventral $\frac{2}{3}$ length of head, not quite reaching vent. Caudal angularly emarginate. Scales feebly denticulated, 70 $\frac{10}{4}$; lat. line 62; scales on pectoral region very small. Greyish-brown above, irregularly blotched with darker, whitish beneath; caudal greyish, other fins black.

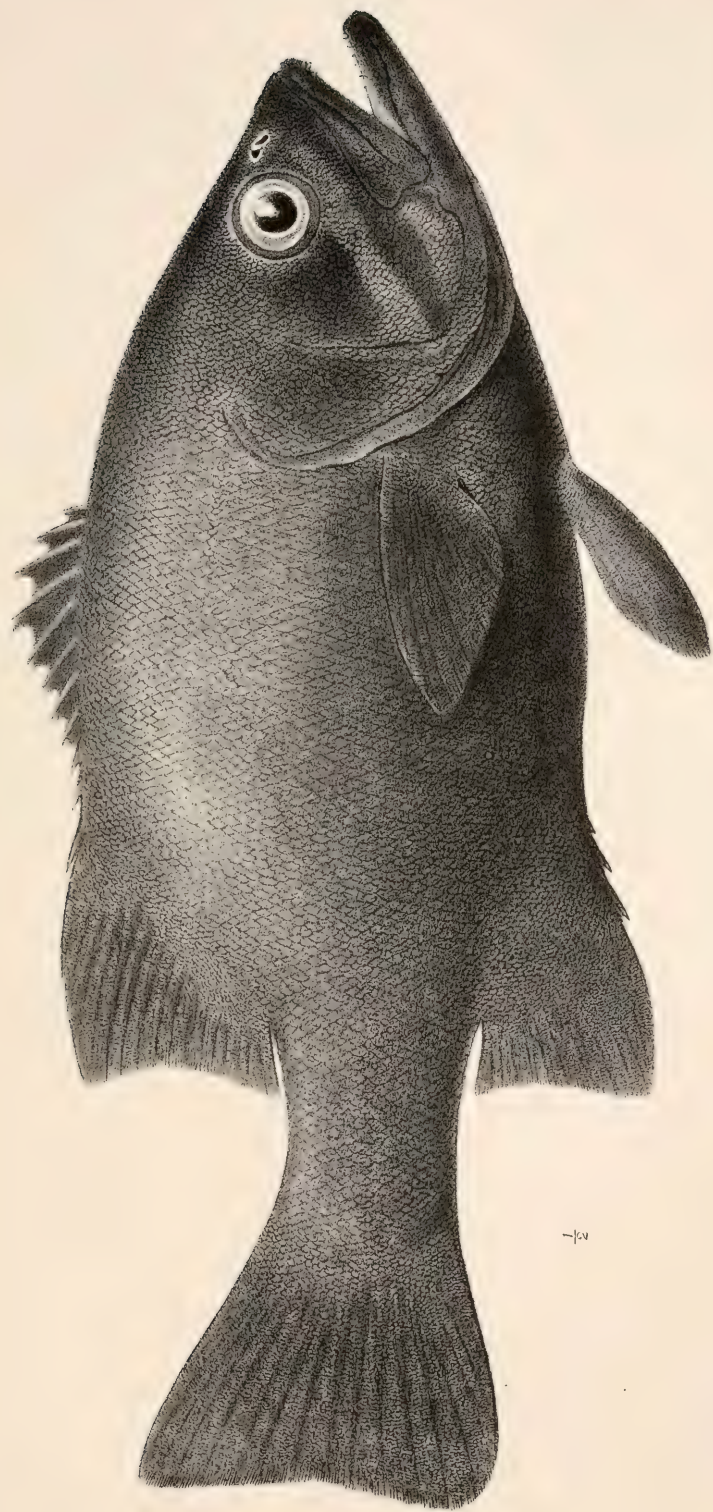
Total length 400 mm.

A single specimen.

Allied to *P. laniarius*, C. and V. Differs in the smaller scales, the single series of molar teeth, and the colouration.

EXPLANATION OF PLATES.

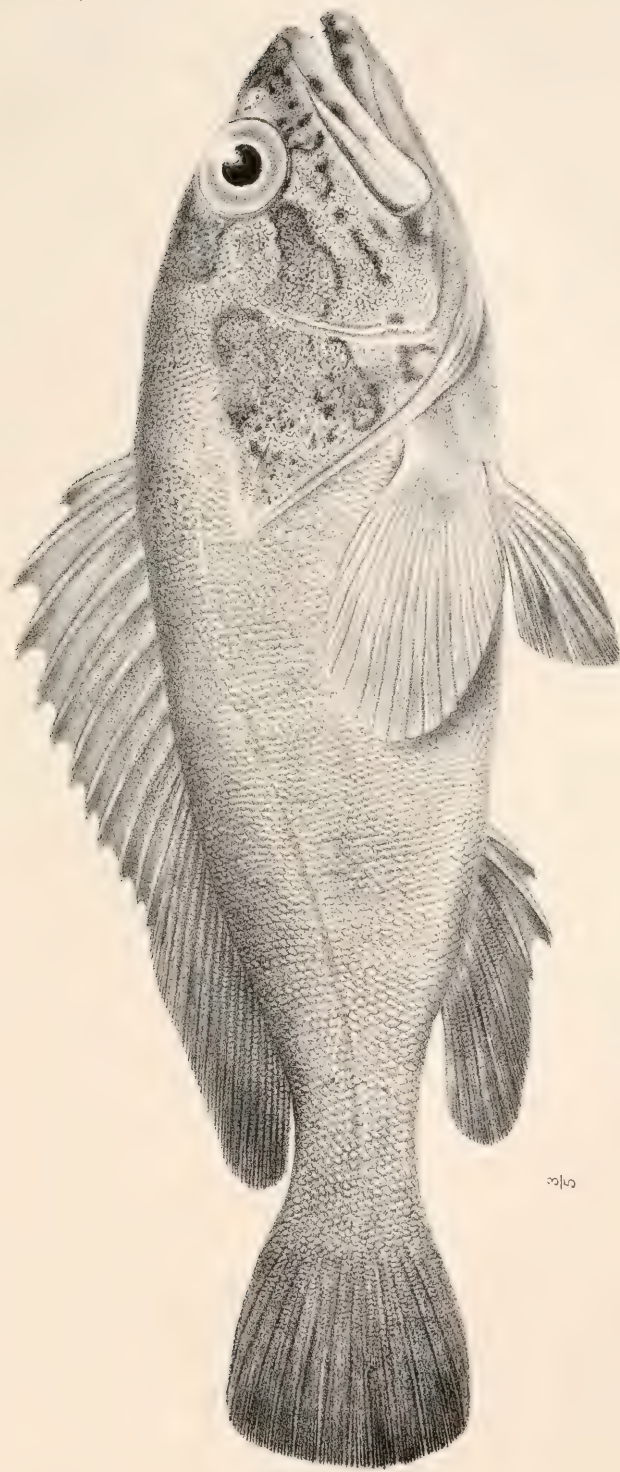
- PLATE II.—*Dinoperca queketti*.
 „ III.—*Epinephelus grammatophorus*.
 „ IV.—*Epinephelus albomarginatus*.
 „ V.—*Epinephelus andersoni*.
 „ VI.—*Dentex lineopunctatus*.
 „ VII.—*Pagrus nigripinnis*.



F. J. Smit del et lith.

Dinoperca queketti.

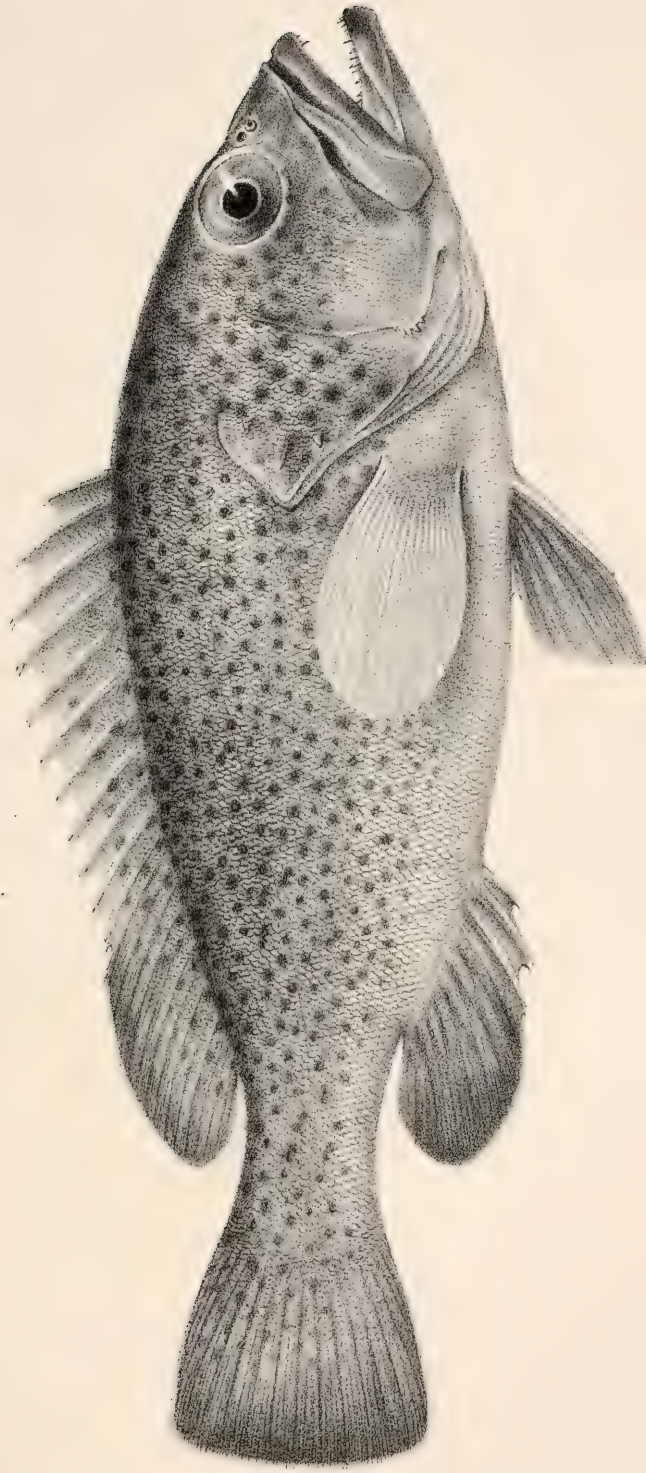
West-Newton imp.



C. J. Smit del et lith.

Epinephelus grammatophorus.

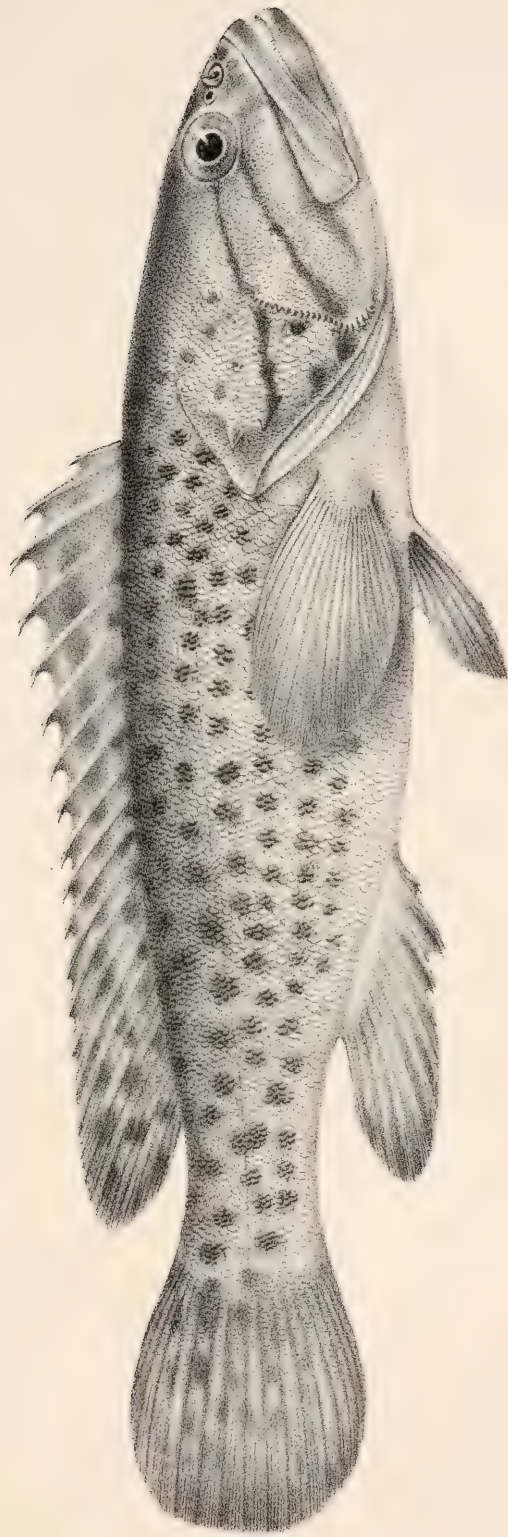
West Newman imp.



J. Green del. et lith.

Epinephelus albomarginatus

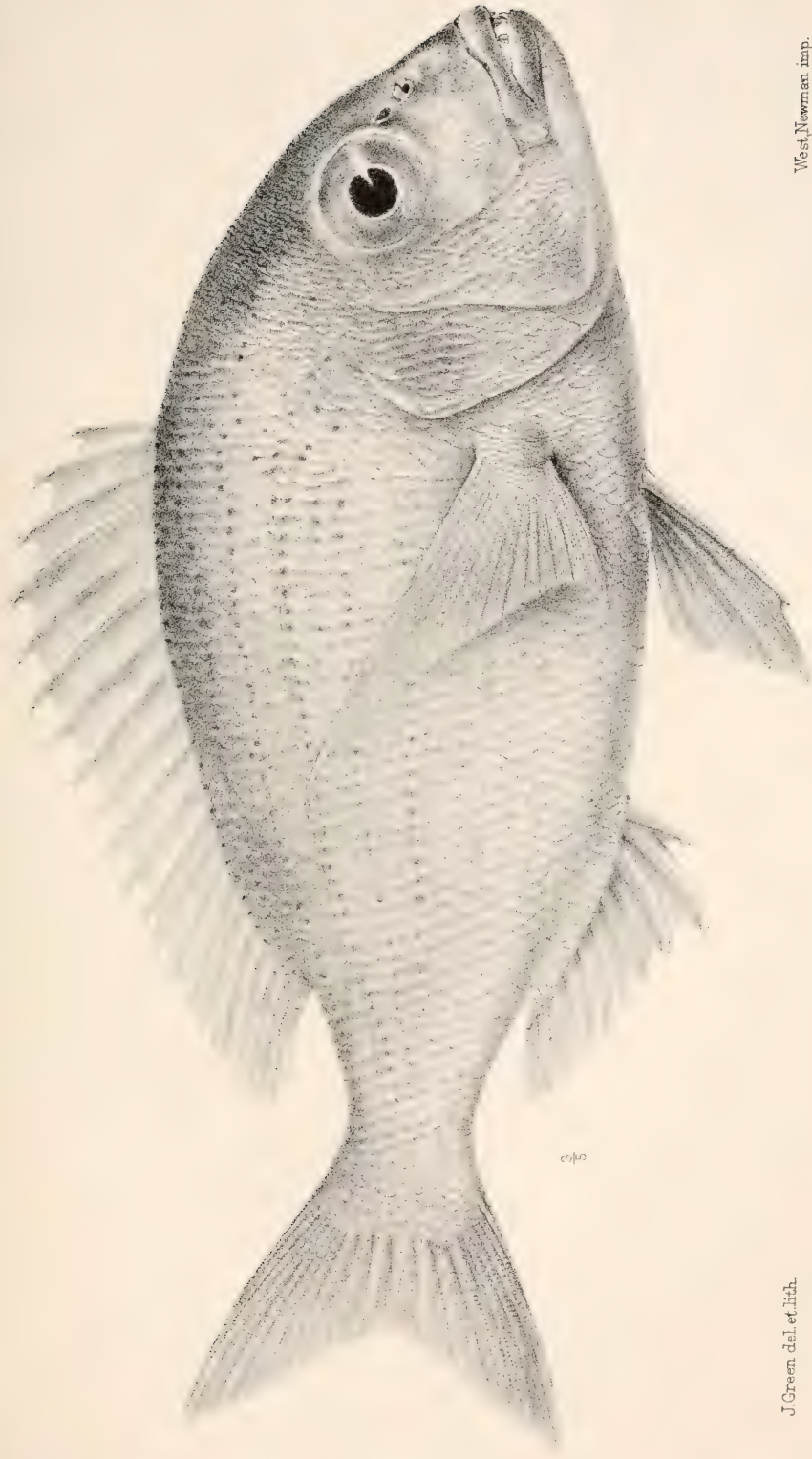
West, Newman imp.



J Green del. et lith.

West, Newman imp.

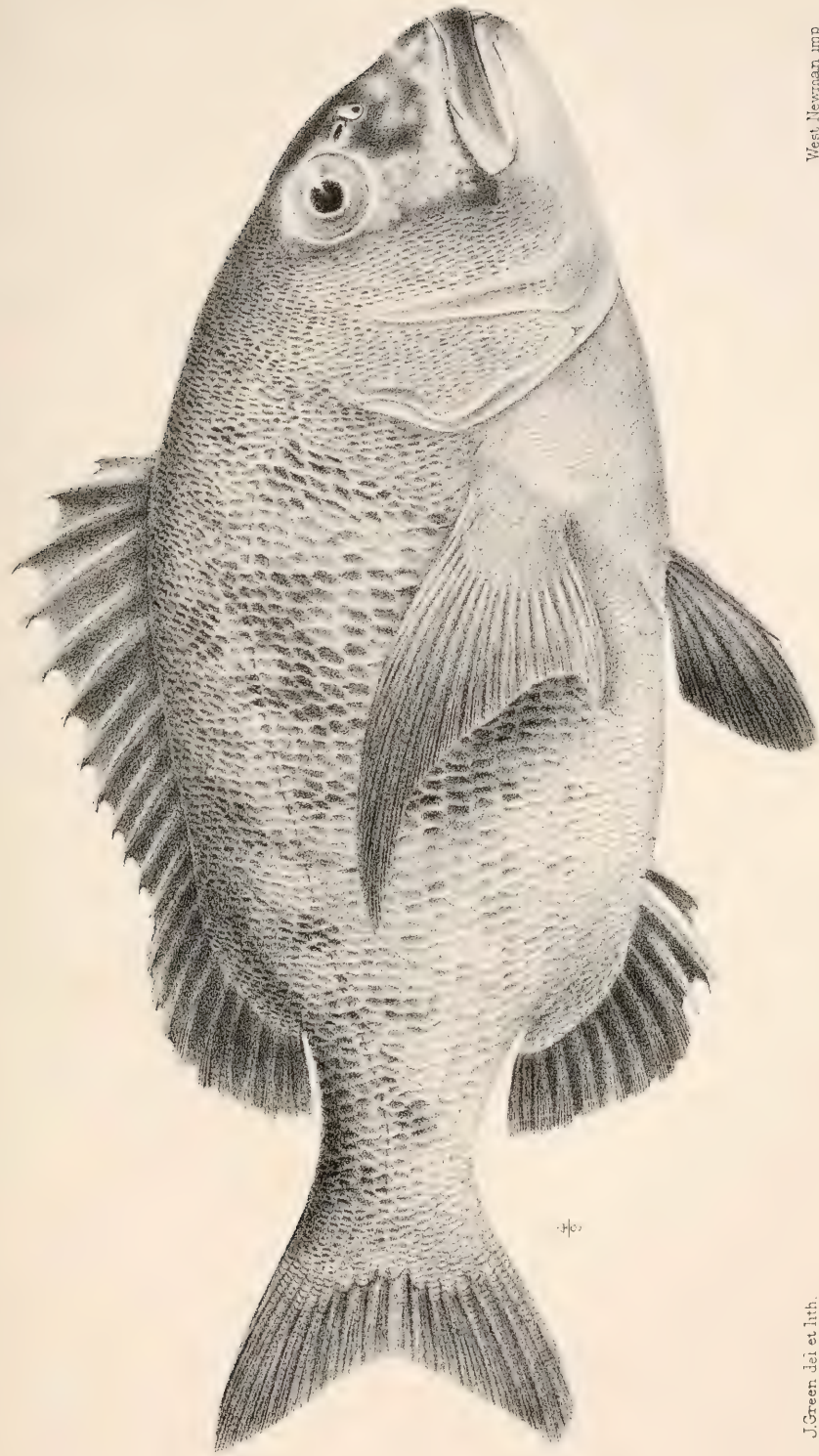
Epinephelus andersoni.



J. Green del. et lith.

West, Newman imp.

Dentex lineopunctatus.



J. Green del et lith.

West Newman imp

Pagrus nigripinnis.



V.—New South African Spiders of the families *Migidae*, *Ctenizidae*, *Barychelidae*, *Dipluridae*, and *Lycosidae*.—By W. F. PURCELL, Ph.D., *First Assistant*. (Plate VIII and 4 text figures.)

THE present paper contains descriptions of 64 new South African spiders, viz., 31 four-lunged spiders (3 *Migidae*, 21 *Ctenizidae*, 5 *Barychelidae*, and 2 *Dipluridae*), and 33 two-lunged spiders (*Lycosidae*). Most of those included in the first three families are true trap-door-building species, a group very numerous represented in South Africa, but as yet only imperfectly known.

FAMILY MIGIDÆ.

GEN. MOGGRIDGEA O. P. Cambr.

1. MOGGRIDGEA MORDAX n. sp.

Types.—6 ad. ♀ ♀ with cocoons and 5 nests (Nos. 12403–12408) from the low veld at the Hot Springs near Montagu, Cape Colony, found by my wife and myself in November, 1902.

♀ ♀. *Colour* of carapace, limbs, and chelicerae reddish yellow to olivaceous yellow, in parts even olivaceous; abdomen olivaceous black, or the under side pale yellowish.

Carapace wide, its length (measured laterally to the ocular area) exceeding that of the first tibia, metatarsus, and tarsus, and subequal to or a little shorter than the fourth tibia and metatarsus. Fovea strongly but not angularly recurved; a fine median groove sometimes present behind it. Ocular area about $2\frac{1}{4}$ – $2\frac{1}{2}$ times as wide as long, very like that of *M. seticoxa* Purc. (Ann. S. A. Mus., v. 3, p. 18, 1903), but its width considerably exceeding the length of first metatarsus; anterior median eyes less than a diameter apart and nearly twice a diameter or more from the anterior laterals, which are very large and nearly twice as long as the median eyes; posterior row recurved, the median eyes oval, larger than the laterals and

about as long as the anterior medians; clypeus not exceeding $\frac{1}{2}$ the diameter of an anterior lateral eye (generally much less).

Legs.—*Metatarsus* IV with 3-5 spiniform setæ in the apical tuft. *Tibia* I less than twice as long above as wide. *Patella* III with a broad anterior band of spines and setiform spines above. *Coxæ* II and III with a basal patch of sharp stout spinules, the patches sub-equal, III also with a few, more distal spinules below posteriorly, which are rarely absent.

Labium with 17-22 teeth in anterior part, of which the posterior ones are short; the teeth on the *coxæ of pedipalps* only in 1-3 rows in the distal half but numerous in the basal half.

Total length * 17-20 mm.

Cocoons.—The cocoon is a compressed oval sack with one end rounded off and the other more truncated. Its wall is very white and of a fine although tough and parchment-like texture. It is suspended just above the bottom of the burrow with the truncated end uppermost by means of some threads of silk running from the two upper corners to the sides of the burrow. One cocoon measured 18 mm. in length, 12 in width, and 7 in thickness, and contained 65 eggs, each about $2\frac{1}{3}$ mm. in diameter and in an early stage of development (end of November).

Nests.—The lids are D-shaped, rather thick and flat, becoming thinner at the margin all round. The hinge is very wide and

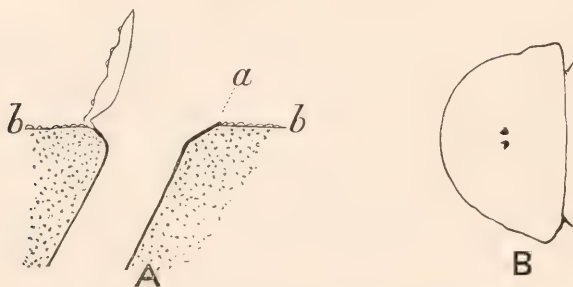


FIG. 1.—A, section through upper part of terrestrial trap-door burrow of *Moggridgea mordax* n. sp. (nat. size); B, lid of same, seen from below; a, edge of tube-lining; bb, surface of ground.

occupies almost the whole of the truncated margin. The upper side of the lids is covered with earth and generally overgrown by a black fungus, while the under side is lined with white silk

* Total length includes the chelicerae but not the spinners.

and provided with a pair of conspicuous pits in the centre, which are always placed as in fig. 1b.

The hole descends at a considerable incline in the upper part and reaches a depth of $4-4\frac{1}{2}$ inches ($10-11\frac{1}{2}$ cm.). At the opening the tube-lining is suddenly bent outwards to form a depressed funnel-shaped, spreading rim about 2-3 mm. in width all round, against which the lid closes.*

It is characteristic of both *M. mordax* n. sp. and *M. terricola* E. Sim., that the lid is not placed with its upper surface flush with the ground but is distinctly raised above it, just as if it were a detached piece lying loose upon the veld. This circumstance makes it very difficult to distinguish these lids in the case of *M. mordax* from the many small flat pieces of earth which have become loosened from the cracked surface of the ground, so that one has generally to lift the piece before one can be certain whether it covers a nest or not.

2. MOGGRIDGEA LEIPOLDTI n. sp.

Type.—1 ♀ (No. 3619) found by Mr. C. L. Leipoldt on the road from Clanwilliam to Van Rhyns Dorp, Cape Colony, in December, 1897.

Closely resembling the foregoing.

♀. *Abdomen* pale yellowish, the hair-bearing tubercles black.

Carapace longer than the tibia, metatarsus, and tarsus of first leg, but shorter than the tibia and metatarsus of fourth leg. Fovea without the median groove. Ocular area with its width very slightly less than the length of the first metatarsus; posterior median eyes narrow elongate, twice as long as the small lateral eyes.

Coxa III with a basal patch of 26-27 stout short spinules, the other coxæ muticous.

Labium with 23 teeth on anterior half.

Total length 19 mm.

3. MOGGRIDGEA COEGENSIS n. sp.

Type.—1 ♀ (No. 5678) found by Mr. I. L. Drège at Coega, Uitenhage Division, in May, 1899.

* The nests of *Gorgyrella schreineri* Purc. (Ann. S. A. Mus., v. 3, p. 26, pl. 1, fig. 3, 1903) closely resemble these in many respects, the upper part of the hole being similarly inclined and similarly shaped in both, except that in *Gorgyrella* the spreading rim is much more steeply funnel-shaped to fit the strongly bevelled edge of the lid.

Allied to *M. mordax* n. sp.

♀. Abdomen olivaceous black, the opercula and the genital segment yellowish below.

Carapace wide, the thoracic portion almost rotundate; the length a little exceeding that of the tibia, metatarsus, and tarsus of first leg but less than that of the tibia and metatarsus of fourth leg. Fovea smaller, semicircular, with a small median groove behind it. Ocular area with its width exceeding the length of the first metatarsus; posterior median eyes oval, less than the anterior medians in length but a little longer than the small posterior laterals and rather remote from them.

Coxa III with a basal patch of spiniform setæ; II with a much smaller and scarcely distinct group (formed of 6-8 setæ placed closer together than elsewhere).

Labium with 20 teeth in anterior part.

Total length $14\frac{1}{2}$ mm.

The *Migidæ* (♀ ♀) from Cape Colony* may be grouped as follows:—

- a. Fourth metatarsus without apical infero-posterior tuft of spiniform setæ; femur of second leg with only fine hairs below. Nest arboreal and provided with two doors. Eastern Cape Colony † *Pœcilomigas abrahami* (O. P. Cambr.).
- b. Fourth metatarsus with an apical infero-posterior tuft of 3-5 spiniform setæ regularly arranged in a transverse row; femur of second leg with 1-2 rows of stout spiniform setæ below *Moggridgea* O. P. Cambr.

a¹. Coxa of third leg with a basal patch of short stout spinules.

a². Coxæ of first, second, and third legs with basal patch of spinules. Nest arboreal and with one door.† Grahamstown and Uitenhage Division.

M. dyeri O. P. Cambr.

b². Coxæ of second and third legs only with basal patch of spinules. Terrestrial. Montagu *M. mordax* n. sp.

c². Coxa of third leg only with basal patch of spinules.

a³. Posterior median eyes narrow elongate; the anterior laterals very large and convex. Clanwilliam or Van Rhyns Dorp Divisions.

M. leipoldti n. sp.

* *M. meyeri* Karsch (Zeit. ges. Naturw., v. 52, p. 384) is evidently a *Stasimopus* but certainly not a *Moggridgea*.

† The Museum has 1 ♀ from Seymour, Stockenstrom Division, and one with its nest from the Pirie Bush near Kingwilliamstown (*F. A. Pym*). The latter was found on a Knobwood Tree. The types came from Grahamstown. *P. pulchripes* E. Simon (Ann. Soc. ent. Belg., v. 47, p. 23, 1903), from Natal, differs according to Simon's description in having the anterior lateral eyes smaller, instead of larger, than the medians.

‡ The Museum has specimens from Grahamstown (*Dr. Schönland*).

- b*³. Posterior median eyes broadly oval or nearly rounded; the anterior laterals moderately large. Terrestrial. Cape Peninsula.

M. terricola E. Sim.

- b*¹. Coxa of third leg with at most a basal group of short setæ.

- a*⁴. Anterior row of eyes (seen from above) with its front margin forming a straight or even very slightly recurved line, the lateral eyes comparatively small, their area only about twice that of the posterior lateral eyes. Nest arboreal and with one door. Cape Peninsula *M. quercina* E. Sim.

- b*⁴. Anterior row of eyes with its front margin forming a strongly procurved line, the lateral eyes very large and convex, their area many times larger than that of the posterior lateral eyes.

- a*⁵. Coxa of third leg with a distinct postero-basal group of shorter and more densely crowded (often spiniform) setæ on under side.

- a*⁶. Ocular area narrower, its width less than the length of metatarsus of first leg. Hanover .. *M. seticoxa* Pure.

- b*⁶. Ocular area broader, its width greater than the length of metatarsus of first leg. Uitenhage Division

M. coecensis n. sp.

- b*⁵. Coxa of third leg muticous Terrestrial.
Worcester Division *M. peringueyi* E. Sim.

FAMILY CTENIZIDÆ.

GEN. STASIMOPUS E. Sim.

1. STASIMOPUS ERYTHROGNATHUS n. sp.

Types.—6 ad. ♀ ♀ (No. 2857) from the village of Worcester, Cape Colony, collected by Mr. Isaac Meiring in November, 1897, together with 2 nests.

♀ ♀. *Colour*.—Carapace brown, yellowish posteriorly; chelicerae reddish brown; pedipalps and legs brown, the 2 posterior pairs yellowish below and also in places above; coxæ of legs and posterior part of sternum more or less ochraceous; coxa of pedipalp reddish; anterior part of sternum fuscous brown; abdomen dirty pale yellowish, with broad dark patch above along the middle.

*Carapace** as long as the patella and tibia together with $\frac{2}{3}$ — $\frac{5}{6}$ of the metatarsus of first leg and as the tibia, metatarsus, and $\frac{2}{3}$ — $\frac{4}{5}$ of the tarsus of fourth leg.

* The length of the carapace is taken laterally across the edge of the ocular area.

Ocular area.—Width behind less than or just equal to the length of the metatarsus of first leg and about $\frac{3}{4}$ of the length of the fourth metatarsus; anterior row of eyes (viewed from above) procurved or with the posterior margins of the eyes in a straight line, the lateral eyes strongly transverse, elongate oval; the posterior row with the anterior margins in a straight or slightly recurved line; the median eyes small and subrotund, as far apart as, or very slightly further apart than, the anterior lateral eyes and distant about their own diameter or slightly more from the posterior lateral eyes; the latter oval, much larger than the posterior medians, their distance apart equal to or only slightly less than the width of the anterior row; distance between the posterior and anterior lateral eyes equal to $\frac{1}{2}$ or a whole long diameter of the latter.

Pedipalps with a band of about 10–14 short spines on inner side of the tarsus, mostly extending up to the base; the tibia with 2–3 stout spines and the patella mostly with 2–4 slenderer spines or setiform spines on the inner surface; tarsus with a basal patch of 22–40 minute spinules above, the tibia with a distal patch of 11–22 such spinules above.

Legs.—Tibia of *first leg* decidedly shorter than the metatarsus, its length a little less than the width of the posterior row of eyes (by less than the width of a lateral eye) but considerably greater than the width of the anterior row; tibia with an internal band of 5–9 short spines occupying the distal $\frac{1}{3}$ – $\frac{1}{2}$ of the segment, the upper side with a large apical patch of minute spinules extending over $\frac{1}{4}$ – $\frac{1}{3}$ of the dorsal length; metatarsus with a long dorsal band of such spinules occupying $\frac{3}{5}$ – $\frac{4}{5}$ of the length of the segment. *Third leg* with 13–22 spines in anterior and 22–34 in the posterior band on the metatarsus; patella with some stout short spinules along anterior side and a number of slenderer ones in distal part of upper surface; patch of red dorsal spinules on tibia large, occupying nearly the distal half of the dorsal length; metatarsus without apical tuft of setae below. *Fourth leg* with the patch of red spinules on the patella very large, extending over more than $\frac{1}{2}$ (up to $\frac{2}{3}$) of the length of the anterior surface; the infero-posterior apical tuft on metatarsus composed of 6–9 subequal spiniform setae regularly arranged in a transverse row.

Labium with 5–10 apical teeth.

Total length 36 mm.; length of carapace $11\frac{1}{2}$, width $9\frac{3}{4}$; length of metatarsus of first leg $4\frac{1}{4}$; width of ocular area 4.

Nests.—The nests resemble those previously described (Ann. S. A. Mus., v. 3, pp. 22 and 24) in general appearance, excepting that the

upper part of the tube is more widely funnel-shaped, being strongly widened all round, particularly at the hinge side, from about 10 mm. from the outer edge. The lids resemble those of *S. schreineri* in shape, the peripheral surface being strongly bevelled and passing over gradually into the lower surface at the rounded lower edge.

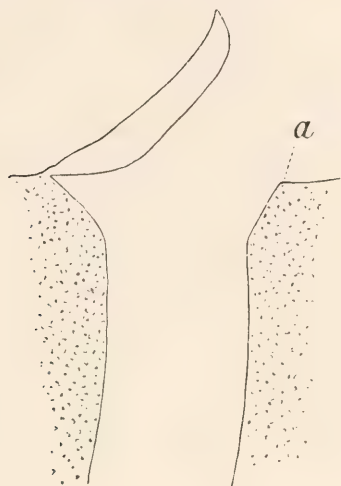


FIG. 2.—Section through upper part of trap-door burrow of *S. erythronathus* n. sp. (nat. size); a, edge of tube-lining.

The under side is, however, provided with a circle of conspicuous pits, as in the lid of *unispinosus* Purc. The dimensions of a nest are as follows:—Width of lid taken parallel to hinge 30 mm., taken at right angles to hinge 31; width of hinge 6; width of hole at about 15 mm. from edge 19; average thickness of lid about $4\frac{1}{2}$.

2. STASIMOPUS BREVIPALPIS n. sp.

Specimens.—(a) Two large and 2 smaller ♀ ♀ and 1 ad. ♂ (Nos. 8846 and 8895) from the farm “Bonnie Vale,” at Bushmans Drift, on the Breede River, Swellendam Division (near Ashton), dug out of the ground by Mr. Charles Groom during the construction of a water furrow.

♀ ♀ (*Types*). Colour as in *S. leipoldti* Purc. (Trans. S. A. Phil. Soc., v. 11, p. 348) or even darker, the abdomen without conspicuous dark patch above.

Carapace as in the foregoing; its length sometimes equalling the tibia, metatarsus, and tarsus of fourth leg.

Ocular area.—Width behind exceeding the length of the tibia and shorter than or even very slightly exceeding the length of the metatarsus of first leg and about $\frac{3}{4}$ — $\frac{4}{5}$ of the length of the fourth metatarsus; anterior row of eyes (seen from above) lightly procurved or with the hind margins in a straight line, the lateral eyes large, broadly oval, transverse; the posterior row very distinctly recurved, the median eyes small, rotund, slightly further apart than the anterior lateral eyes and distant about their own diameter or slightly more from the posterior lateral eyes; the latter subrotund or slightly oval, small, subequal to or only slightly larger than the posterior medians, their distance apart very distinctly exceeding the width of the anterior row; distance between the posterior and anterior lateral eyes slightly or considerably exceeding the long diameter of the latter.

Pedipalps spined much as in the foregoing species, but the basal patch on the tarsus smaller, composed of only 9–20 spinules, and the distal patch on the tibia absent or composed of 1–4 spinules.

Legs.—Length of tibia of *first leg* decidedly less than that of the metatarsus and exceeding the width of the anterior row of eyes, but less than the width of the posterior row (often by more than the width of a lateral eye); tibia with a band of 5–10 spines occupying from $\frac{1}{3}$ to the whole of the length of the inner surface, the upper side with a small distal patch of spinules occupying at most $\frac{1}{7}$ of the dorsal length, the basal patch on the metatarsus long, almost equaling but not exceeding half the length of the dorsal surface. *Third leg* with 14–21 spines in the anterior and 18–23 in the posterior band on the metatarsus; patella with some short stout spines along anterior surface and a few (not more than a dozen) or no slenderer spinules in distal part of upper surface; patch of red spinules on tibia occupying only about $\frac{2}{3}$ of the dorsal length; metatarsus without apical tuft of setæ below. *Fourth leg* with the patch of red spinules on the patella large, occupying from $\frac{1}{2}$ — $\frac{2}{3}$ of the length of the anterior surface; the infero-posterior apical tuft on the metatarsus composed of 6–8 subequal spiniform setæ regularly arranged in a transverse row.

Labium with 4–8 apical teeth.

Total length 30 mm.; length of carapace 10, width $8\frac{3}{4}$; length of metatarsus of first leg $3\frac{1}{2}$; width of ocular area $3\frac{1}{2}$.

♂. *Colour*.—Carapace and chelicerae reddish black, the latter with dark reddish bands above; abdomen fuscous-yellow above, paler below; pedipalps and 2 anterior pairs of legs blackened proximally

but becoming pale ochraceous distally, the 2 posterior pairs pale fusco-ochraceous, the femur of third leg strongly darkened; sternum pale ochraceous, infuscated anteriorly and at the sides; 2 posterior pairs of coxæ pale ochraceous below, the other coxæ more or less dark brown.

Carapace with the thoracic portion covered with confluent granules and ridges, which become sparser and weaker at the anterior lateral angles; the cephalic portion covered with coarse shallow pits on each side in the posterior part, the anterior part transversely and weakly striated at the sides, the upper part with 3 low keels, of which the lateral ones are abbreviated behind but the median one is continued to the fovea. Carapace a little longer than the metatarsus of first leg and subequal to that of fourth leg. Eyes much as in the ♀.

Pedipalps not quite reaching to the apex of the tibia of first leg when stretched out in front; the femur curved, concave on the inner side; the tibia swollen, fusiform, the outer side very convex and the inner side straight, almost $\frac{3}{4}$ as long as the metatarsus of fourth leg and about $\frac{2}{3}$ as long as the carapace; the patella short, its length only a little exceeding $\frac{1}{2}$ the tibia and equal to $\frac{1}{2}$ the tibia of first leg; spine of palpal organ much longer than the bulb, the basal three-fourths thicker, gradually tapering and slightly curving downwards the distal portion slender and filiform, strongly curving outwards.

Legs.—*First leg* long and slender, the tarsus swollen and scopulate below, with 0 internal and 1–2 external spines; metatarsus slightly curving downwards distally, scopulate below in the distal fifth or sixth, the under side thickly spined on each side and also with 1–3 spines along the median line; tibia decidedly shorter than the metatarsus, spined below and on the inner side; patella strongly spined distally. *Second leg* like the first, but shorter, sometimes without spines along the median line of metatarsus below. *Third leg* with the tarsus slightly swollen below and scopulate, with 4–6 anterior and 7–9 posterior spines; metatarsus almost straight (except quite at base); the spines otherwise much as in the ♂ of *S. schreineri* Pure. (Ann. S. A. Mus., v. 3, p. 21). *Fourth leg* with the tarsus stout, slightly incrassated from the base distally, scopulate almost to the base and furnished with 2–3 internal and 14–15 external spines; metatarsus very slightly curved, with infero-posterior tuft of setiform spines; tibia with 6–9 external spines; patella with a patch of spinules extending over half the length of anterior surface.

Total length 15 mm.; length of carapace $6\frac{1}{4}$, of pedipalp (including coxa) $15\frac{3}{4}$, of first leg $26\frac{1}{2}$.

(b) 1 ad. ♀ (No. 12394) with nest and cocoon from Ashton Station, Robertson Division, collected by Mr. T. O'Connor.

Cocoon.—The cocoon resembles that of *S. quadratimaculatus* n. sp., described further on (p. 79).

Nest.—The nest resembles that of *S. erythrognaethus* n. sp., but is smaller. The lid was firmly fastened down, as is usually the case during the hatching period, being attached all round the lower edge to the lining of the tube by means of silk. The dimensions are as follows:—Width of lid taken parallel and at right angles to hinge 22 mm.; width of hole at 10 mm. from edge $16\frac{3}{4}$; width of hinge 15; average thickness of lid about 4; length of occupant $29\frac{1}{2}$, width of its carapace $7\frac{3}{4}$.

3. STASIMOPUS QUADRATIMACULATUS n. sp.

Specimens.—6 ad. ♀ ♀ (types; Nos. 12397–12402) with 5 of the nests, 2 also with cocoons, from the low veld at the Montagu Baths, collected by my wife and myself in November, 1902. Also, 2 immature specimens (one with the nest) from the same locality.

♀ ♀. *Colour* as in *brevipalpis* n. sp., but the abdomen with a small but very distinct quadrate infuscate mark anteriorly above and generally also a large infuscate patch posteriorly above the spinners.

Carapace as long as the patella and tibia together with $\frac{2}{3}$ or the whole of the metatarsus of first leg and as the tibia and metatarsus together with $\frac{3}{4}$ or the whole of the tarsus of fourth leg.

Eyes much as in *erythrognaethus* n. sp.; the posterior median eyes sometimes less than their own diameter from the posterior laterals.

Legs.—Length of tibia of *first leg* equalling or slightly exceeding (rarely less than) the width of the posterior row of eyes and often only slightly less than the length of the metatarsus; apical patch of spinules on the tibia small, occupying at most $\frac{1}{6}$ of the length of the dorsal surface; dorsal band on metatarsus I occupying from $\frac{1}{2}$ – $\frac{3}{4}$ of the length of the dorsal surface. *Third leg* with 12–21 spines in the anterior and 14–24 in the posterior band on the metatarsus; the distal dorsal spinules on the patella mostly setiform and sometimes absent. *Fourth leg* with 8–11 regularly arranged, subsetiform spines in the infero-posterior apical tuft of the metatarsus. Legs otherwise as in *erythrognaethus* n. sp.

Measurements of adults.—Total length 27–32 mm.; length of carapace 10–11; width of ocular area in largest ♀ $3\frac{1}{2}$.

The two immature specimens have the posterior eyes closer together on each side.

Cocoons.—The white cocoon is of soft texture and subspherical in shape, except on one side, which is flat and provided round the edge, at least in part, with a narrow free flap (*aa*, fig. 3). An uninjured cocoon contained 43 eggs, each measuring about $2\frac{3}{4}$ mm. in diameter (in spirits) and still at a very early stage of development (November 25th). The cocoon is placed at the bottom of the burrow.



FIG. 3.—Longitudinal section through cocoon of *S. quadratimaculatus* n. sp. (nat. size).

Nests.—The nest closely resembles that of *S. unispinosus* Purc. (Ann. S. A. Mus., v. 3, p. 24, pl. 1, figs. 1–2), having the lids very thick and cork-like and generally much less strongly bevelled at the edge than those of the two preceding species. The lower edge also is more angular and less rounded. The lids of the adults measure $23\text{--}27\frac{1}{2}$ mm. across (taken parallel to the hinge) and $5\frac{1}{2}\text{--}9$ mm. in average thickness, the diameter of the hole at 1 cm. from the edge being $16\frac{1}{2}\text{--}18$ mm. All the holes measure 18–19 cm. in depth, and they are not enlarged at the bottom. In every case the spider was found at the bottom of the hole.

These nests abound in the open veld near the Baths, and numbers of open and deserted ones were met with.

4. STASIMOPUS BIMACULATUS n. sp.

Type.—1 ♀ (No. 9942) from Willowmore, Cape Colony, collected by Dr. H. Brauns, in December, 1901.

Closely related to the foregoing.

♀. *Colour* brown, the carapace behind and the 2 posterior pairs of legs paler and more yellowish, the pedipalps ochraceous above along the middle of the patella and tibia, the 2 posterior pairs of legs and the 4 pairs of coxæ pale ochraceous; abdomen pallid, with small black dorsal patch in front and a larger one behind.

Carapace as long as the patella, tibia, and metatarsus of first leg and as the tibia, metatarsus, and $\frac{2}{3}$ of the tarsus of fourth leg.

Ocular area compacter than usual, its width behind just equal to the length of the tibia and slightly exceeding that of the metatarsus

of first leg and about $\frac{2}{3}$ or more of the length of the metatarsus of fourth leg. Anterior row of eyes (seen from above) with its posterior margin forming a slightly recurved line, the lateral eyes large, transversely oval; the posterior row markedly recurved, the median eyes large, oblique, slightly larger than the anterior medians, their distance apart distinctly exceeding the distance between the anterior lateral eyes and their distance from the posterior lateral eyes less than $\frac{1}{2}$ their own diameter; the lateral eyes oval, almost equalling or slightly smaller than the posterior medians, their distance apart subequal to the width of the anterior row; distance between the posterior and anterior lateral eyes subequal to the long diameter of the latter.

Pedipalps with a small distal group of about 4 spines on inner side of tarsus and a single apical spine on inner side of tibia; patella not spined; basal patch of red spinules on tarsus occupying $\frac{1}{3}$ or more of the dorsal length, the tibia with tiny distal patch above.

Legs.—Tibia of *first leg* slightly longer than the metatarsus, its inner surface with a distal patch of 8–11 small spines occupying $\frac{1}{2}$ or less of the length; basal patch of spinules on metatarsus long, occupying quite $\frac{2}{3}$ of the dorsal length; the distal patch on the tibia small, occupying about $\frac{1}{6}$ of the length of the dorsal surface. *Third leg* with 15–16 spines in both anterior and posterior band on the metatarsus; patella with a small patch of spinules in distal part of upper surface; the distal patch on the tibia occupying less than $\frac{1}{2}$ of the dorsal length; metatarsus without apical spines below. *Fourth leg* with 7–9 spines on the distal half of the inner surface of the tibia; infero-posterior tuft on metatarsus composed of 10–12 subequal spiniform setæ regularly arranged in a transverse row.

Total length $22\frac{1}{2}$ mm.; length of carapace 9, width 7; length of metatarsus of first leg 3; width of ocular area $3\frac{1}{5}$.

5. STASIMOPUS CASTANEUS n. sp.

Type.—1 ♀ (No. 5378) from Port Elizabeth, collected by Mr. I. L. Drège in 1899.

♀. *Colour*.—Carapace dark brown, only slightly paler posteriorly; chelicerae, pedipalps, and legs dark reddish brown, the 2 posterior pairs of legs paler and more yellowish below; sternum dark brown, pale yellowish posteriorly; abdomen dirty yellowish.

Carapace subequal to the patella, tibia, and metatarsus of first leg in length and almost as long as the tibia, metatarsus, and tarsus of fourth leg.

Ocular area.—Width behind about $\frac{3}{4}$ of the length of the fourth

metatarsus. Anterior row of eyes (viewed from above) with its posterior margin forming a straight line; the lateral eyes rather small, transverse. Posterior row with its anterior margin forming a straight line; the median eyes slightly transverse, their distance apart about their own diameter less than the distance between the anterior lateral eyes and their distance from the posterior lateral eyes equal to their own diameter; the latter eyes distinctly oval, scarcely larger than the medians, their distance apart equal to the width of the anterior row; distance between the posterior and anterior lateral eyes about $1\frac{1}{2}$ times the long diameter of the latter.

Pedipalps with a broad band of short spines on inner side of tarsus extending right to the base; the 4-5 spines on inner side of tibia short and stout; patella not spined; tarsus with small basal patch of spinules above, the tibia without distal patch of spinules above.

Legs.—Tibia of *first leg* equalling the metatarsus, its length subequal to the width of the posterior row of eyes; tibia with a distal patch of 10-14 small spines occupying $\frac{1}{3}$ — $\frac{2}{5}$ of the length of the inner surface; metatarsus with a basal patch of spinules occupying about $\frac{1}{3}$ of the length of the upper side, the tibia with a slightly smaller distal patch above. *Third leg* with about 28 spines in the anterior and in the posterior band on the metatarsus; patella with a dense patch of short red spinules in distal part of upper surface, the distal patch on the tibia extending over about $\frac{1}{2}$ the dorsal length; metatarsus without apical spines below. *Fourth leg* with the patch of red spinules on the patella very large, nearly reaching distal margin; the infero-posterior apical tuft on the metatarsus composed of about 10 subequal spiniform setæ arranged in a regular transverse row, the under side of the metatarsus with 2-3 spines along the middle; tibia also with several spines below.

Labium with 8 apical teeth.

Total length 33 mm.; length of carapace $10\frac{3}{4}$, width $9\frac{1}{2}$; length of metatarsus of first leg $3\frac{2}{3}$; width of ocular area $3\frac{3}{4}$.

6. STASIMOPUS UMTATICUS n. sp.

Type.—1 ♀ (No. 8848) collected near Umtata, Cape Colony, by Miss Pegler, and presented to the Museum by the Rev. F. C. Kolbe.

♀. *Colour* much as in *castaneus* n. sp.; the abdomen pale yellowish, slightly infuscated anteriorly above.

Carapace slightly shorter than the patella, tibia, and metatarsus of

first leg and equal to the tibia, metatarsus, and $\frac{2}{3}$ of the tarsus of fourth leg.

Ocular area.—Width behind about $\frac{2}{3}$ of the length of the fourth metatarsus. Anterior lateral eyes not very large, transverse; the posterior row with the anterior margins of the eyes forming a lightly recurved line, the small median eyes transversely oval, their distance apart slightly less than the distance between the anterior lateral eyes and their distance from the posterior lateral eyes about equal to their own diameter; the latter eyes distinctly oval and a little larger than the medians, their distance apart equal to the width of the anterior row; distance between the posterior and anterior lateral eyes a little exceeding the long diameter of the latter.

Pedipalps as in the foregoing species, except that the tibia has a few distal apical spinules above.

Legs.—Tibia of *first leg* as long as the metatarsus, its length exceeding the width of the posterior row of eyes by a lateral eye's diameter at least; spines and spinules as in the foregoing species. *Third leg* with about 21 spines in the anterior and 17–19 in the posterior band on the metatarsus; patella with a number of short stout red spinules at apex above, similar to those on the tibia. *Fourth leg* with the patch of red spinules on the patella very large, extending over at least $\frac{3}{4}$ of the anterior surface; the infero-posterior tuft on the metatarsus composed of about 11–12 setiform spines, the inner half of which are crowded together in a transverse row, while the outer (inferior) half are more irregularly arranged and scattered.

Labium with 5 apical teeth.

Total length $30\frac{1}{2}$ mm.; length of carapace 10, width $8\frac{1}{2}$; length of metatarsus of first leg $3\frac{1}{2}$; width of ocular area $3\frac{1}{5}$.

7. STASIMOPUS KENTANICUS n. sp.

Types.—2 ♀ ♀ (No. 12411) with nests, found near the village of Kentani, Cape Colony, by the Rev. F. C. Kolbe in 1902.

Closely allied to *umtaticus* n. sp., but differing in the following respects:—

♀ ♀. *Colour* of abdomen nearly black, the under side paler, the genital segment and the 4 lung-opercula pale yellowish; anterior spinners and basal segment of posterior spinners with a black mark at apex below.

Eyes.—Posterior median eyes not transverse, rather large, further apart than the anterior lateral eyes, their distance from the posterior laterals equalling or less than their transverse diameter; the latter

eyes longitudinally oval, smaller than the posterior medians and distant $1\frac{1}{2}$ –2 times their own length from the anterior lateral eyes.

Pedipalps.—Patella sometimes with an internal apical spine; tibia with a number of spinules in the small apical dorsal patch.

Legs.—Tibia of *first leg* equal to the metatarsus, its length exceeding the width of the ocular area (by about twice the width of a posterior lateral eye), the inner surface with 20–35 spines extending over more than the distal half of the segment; basal patch of spinules on the metatarsus extending over $\frac{1}{3}$ – $\frac{1}{2}$ of the length of the dorsal surface. *Third leg* with 25–33 spines in the anterior and a similar number in the posterior band on the metatarsus; patella with a number of setiform or sharply pointed black spines but no short, stout red spinules at apex above. Apical tuft of metatarsus of *fourth leg* composed of 8–12 spiniform setæ, of which only 4–7 of the inner ones are in a close-set transverse row, the rest being irregularly scattered and more separated, as in the previous species.

Labium with 8 apical teeth.

Total length (abdomen contracted) 27 mm.; length of carapace $11\frac{1}{2}$, width 10; length of metatarsus of first leg 3·8; width of ocular area $3\frac{1}{3}$.

Nests.—Lids thick, the under surface unevenly convex and strongly rounded at the edges, the peripheral surface not or only in places marked off from the under surface; ring of pits almost entirely obliterated. Hole as in the other species.

8. STASIMOPUS KOLBEI n. sp.

Types.—1 ex. in spirits (No. 5317) and 1 dried specimen (No. 4542), found near the mouth of the Qoloro River, Kentani District, Cape Colony, in 1899, by the Rev. F. C. Kolbe, together with a nest.

♀ ♀. *Colour*.—Yellowish brown, the chelicerae darker; the 2 posterior pairs of legs below, the 4 pairs of coxæ and the posterior part of the sternum pale yellowish; abdomen dirty pale yellowish, infuscated above.

Carapace equal in length to the patella, tibia, and $\frac{3}{4}$ or the whole of the metatarsus of first leg and to the tibia, metatarsus, and $\frac{1}{3}$ – $\frac{1}{2}$ of the tarsus of fourth leg.

Ocular area relatively longer and narrower than usual, its width only $2\frac{1}{2}$ times its length, being a little less than the length of the metatarsus of first leg and about $\frac{2}{3}$ of the length of the metatarsus of fourth leg. Anterior row of eyes (viewed from above) with its posterior margin almost straight (scarcely procurved), the lateral eyes

transverse and large; the posterior row with its anterior margin straight or scarcely recurved, the median eyes obliquely oval, larger than the anterior medians and posterior laterals and situated close to the latter, being distant from them only $\frac{1}{3}$ of an eye's diameter, their distance apart slightly less than or almost equal to the distance between the anterior lateral eyes; posterior lateral eyes oval, small, their distance apart subequal to the width of the anterior row, which is not very much less than that of the posterior row; distance between the posterior and anterior lateral eyes equal to or less than the long diameter of the latter.

Pedipalps with the broad band of short spines on inner surface of tarsus extending to the base; the 3-5 spines on inner side of the tibia scattered over almost the whole length of the segment; tarsus with a minute basal patch of only about 10 spinules above, the tibia with a similar distal patch of spinules.

Legs.—Tibia of *first leg* subequal to or slightly longer than the metatarsus, its length also considerably exceeding the width of the posterior row of eyes; internal band of spines on tibia occupying more than $\frac{1}{2}$ the length of the segment; basal patch of spinules on the metatarsus small, occupying $\frac{1}{6}$ — $\frac{1}{3}$ of the length of the upper surface, the tibia with a similar, slightly smaller apical patch. *Third leg* with about 15-18 spines in the anterior and a similar number in the posterior band on the metatarsus; patella with a distal patch of spinules above; the distal patch on the tibia extending over $\frac{1}{2}$ the length of the dorsal surface; metatarsus without apical spines above. *Fourth leg* with the large patch of red spinules on the patella extending over $\frac{2}{3}$ or less of the anterior surface; infero-apical tuft on the metatarsus composed of about 6-8 subequal setiform spines regularly arranged in a transverse row.

Total length of dried specimen $17\frac{1}{2}$ mm.; length of carapace $8\frac{1}{3}$, width $6\frac{3}{4}$; length of metatarsus of first leg 3; width of ocular area $2\frac{1}{2}$.

Nest.—Lid thick and cork-shaped, much like that of *S. unispinosus* Purc. (Ann. S. A. Mus., v. 3, pl. 1, figs. 1-2), the peripheral surface strongly marked and scarcely bevelled, except on the hinge side; under surface flattened, but with the ring of pits almost obliterated; hinge very broad.

The following is a synopsis of the species (♀ ♀) from Cape Colony in the Collection* :—

* *S. caffrus* (C. L. Koch), *S. meyeri* (Karsch) (see note on p. 72), *S. artifex* and *schönlandi* Poc., from Cape Colony, are not known to me.

- a.* Metatarsus of fourth leg without infero-posterior apical tuft of setæ or spines
Species from Natal.
- b.* Metatarsus of fourth leg with an infero-posterior apical tuft of setæ or spines
Species from Orange River Colony and Cape Colony.
- a*¹. Metatarsus of third leg with a group of apical spines below.
- a*². Metatarsus of fourth leg with the apical tuft composed of 4-5 subequal setiform spines regularly arranged in a transverse row and with 3-5 irregularly arranged other spines on the outer side of the tuft. Kingwilliamstown * *S. insculptus* Poc.
- b*². Metatarsus of fourth leg with the apical tuft composed of a single, large stout spine, which is usually flanked on one or both sides by 1-3 much slenderer spines or spiniform setæ. Hanover .. *S. unispinosus* Pure.
- b*¹. Metatarsus of third leg without group of apical spines below.
- a*³. Ocular area very wide, its width behind equal to the length of the metatarsus together with $\frac{1}{2}$ or more of the tarsus of first leg and slightly less than or subequal to the length of the metatarsus of fourth leg; posterior row of eyes strongly recurved.
- a*⁴. Patella of third leg with a number of slenderer dorsal spines at apex in addition to the stout ones along the anterior surface. Hanover
S. schreineri Pure.
- b*⁴. Patella of third leg without any slenderer dorsal spines at apex. Clanwilliam *S. leipoldti* Pure.
- ³. Ocular area narrower, its width behind less than or only slightly exceeding the length of the metatarsus of first leg and about $\frac{2}{3}$ - $\frac{4}{5}$ of the length of the metatarsus of fourth leg.
- a*⁵. Basal patch of spinules on upper side of metatarsus I long, extending over at least $\frac{1}{3}$ of the dorsal length of the segment.
- a*⁶. Tibia of first leg shorter than the metatarsus; posterior median eyes small, distant more than $\frac{1}{2}$ their own diameter from the posterior lateral eyes.
- a*⁷. Basal patch of spinules on metatarsus II not longer than the distal dorsal patch on tibia II; distal patch on tibia I occupying $\frac{1}{3}$ - $\frac{1}{2}$ of the length of the segment; basal patch on metatarsus I occupying less than $\frac{1}{2}$ the length of the segment; posterior lateral eyes about $1\frac{1}{3}$ - $1\frac{3}{4}$ times as long as the medians and separated from them by a little more than a diameter of the latter. Graaff Reinets † *S. palpiger* Poc.
- b*⁷. Basal patch of spinules on metatarsus II distinctly longer than the distal patch on the tibia (generally twice as long or more).

* 1 ♀ from Kingwilliamstown (*F. A. Pym*).

† 1 ♀ from Graaff Reinets.

- a^8 . Distal patch of spinules on tibia I large, extending over $\frac{1}{4}$ – $\frac{1}{3}$ of the length of the dorsal surface; metatarsus III with 13–22 spines in the anterior and 22–34 in the posterior band; posterior lateral eyes much larger than the medians. Worcester *S. erythrognaethus* n. sp.
- b^8 . Distal patch of spinules on tibia I small, extending over not more than $\frac{1}{6}$ of the length of the dorsal surface; metatarsus III with 12–21 spines in the anterior and 14–24 in the posterior band.
- a^9 . Posterior lateral eyes much larger than the posterior medians; length of tibia I equalling or slightly exceeding (rarely slightly less than) the width of the posterior row of eyes. Montagu
S. quadratimaculatus n. sp.
- b^9 . Posterior lateral eyes small, subequal to or only slightly larger than the posterior medians; length of tibia I less than the width of posterior row of eyes (often considerably less). Swellendam and Robertson Divisions *S. brevialpis* n. sp.
- b^6 . Tibia of first leg slightly longer than the metatarsus; posterior median eyes large, larger than the anterior medians and separated by less than $\frac{1}{2}$ their own diameter from the posterior lateral eyes. Willowmore *S. bimaculatus* n. sp.
- b^5 . Basal patch of spinules on upper side of metatarsus I small, occupying only about $\frac{1}{8}$ – $\frac{1}{5}$ (rarely nearly $\frac{1}{4}$) of the length of the dorsal surface.
- a^{10} . Ocular area much more than $2\frac{1}{2}$ times as wide as long.
- a^{11} . Metatarsus IV spined along the middle below. Port Elizabeth *S. castaneus* n. sp.
- b^{11} . Metatarsus IV without spines along the middle below (except quite at apex).
- a^{12} . Length of tibia I subequal to or less than the width of the ocular area; all the setiform spines of apical tuft of metatarsus IV crowded into a transverse row. Pearson * *S. astutus* Poc.
- b^{12} . Length of tibia I very distinctly exceeding the width of the ocular area; only the inner setiform spines of apical tuft of metatarsus IV crowded together in a transverse row, the outer (inferior) ones being more scattered and irregularly arranged.
- a^{13} . Patella III with a number of short stout red spinules at apex above, similar to those on the tibia. Umtata *S. umtaticus* n. sp.

* Several ♀ ♀ from Pearson (*Dr. R. Broom*).

*b*¹³. Patella III with the distal dorsal spines black and finely pointed at apex or setiform. Kentani

S. kentanicus n. sp.

*b*¹⁰. Ocular area only $2\frac{1}{2}$ times as wide as long. Kentani District

S. kolbei n. sp.

GEN. ACANTHODON Guérin.

1. ACANTHODON PECTINIPALPIS n. sp.

Types.—3 ad. ♂ ♂ (No. 9938) from Zululand, collected by Mr. W. Anderson, Director of the Geological Survey of Natal.

♂ ♂. *Colour* pale ochraceous, the legs often faintly tinged with greenish; abdomen deeply infuscated above, the under surface and the lower part of the sides pale yellowish.

Carapace with a number of setiferous granules on the thoracic and on each side of the cephalic portion; its length a little less than that of the metatarsus of fourth leg, and slightly exceeding that of the metatarsus of first leg.

Ocular area as wide as or even considerably wider than long; the area formed by the anterior median and anterior lateral (frontal) eyes parallel-sided or wider behind, about $1\frac{1}{2}$ – $1\frac{3}{4}$ times as long as the posterior width, the laterals (frontal eyes) larger than the medians and very close together; posterior row of eyes procurved, the medians small, almost or quite as far from the laterals as from one another, their outer margins the same distance apart as those of the anterior median eyes; the posterior lateral eyes large and reniform.

Pedipalps.—Tibia twice as long as the patella and twice as long as thick, with a deep excavation in distal part of infero-external surface, the outer and part of the proximal margins of the excavation armed with a semicircular band of stout spines, which are 2–3 rows deep proximally but in a single row distally, except quite at the apex; tarsus with 1 stouter and a couple of slenderer apical spines above; spine of palpal organ much longer than the bulb, very thick in the basal half, then suddenly bent and strongly attenuated from the middle onwards, the distal part being slender and filiform, with small sigmoid flexure at tip.

Legs.—*First leg* with the tibia shorter than the metatarsus and furnished distally at the inner lower edge with a pair of large tubercles, of which the distal one is produced into a stout, black spur-like process, while the proximal one is short and turgid, with sharply conical black apex; under side of tibia with 4–5 external but

no internal spines; metatarsus almost straight or very slightly curved, without concavity or thickening near base on inner surface, and furnished with 1-2 internal and 3-4 external spines; tarsus with 0-1 internal and 0-3 external spines. All the *tarsi* scopulate to the base. *Metatarsi* not scopulate.

Total length $8\frac{1}{2}$ - $11\frac{1}{2}$ mm.

2. ACANTHODON SPIRICOLA n. sp.

Types.—2 ad. ♀ ♀ (Nos. 12413-4, one with young) and 6 nests, found by the Rev. F. C. Kolbe under the shelter of roots in forests near the village of Kentani, Cape Colony, in 1902.

♀ ♀. *Colour* yellow; abdomen pallid, with the dorsal surface infuscated; cephalic portion of carapace slightly brown in places in one specimen.

Carapace (measured across outer side of frontal eye-tubercle) as long as the tibia, metatarsus, and tarsus of fourth leg and as the patella, tibia, and metatarsus of first leg.

Ocular area as long as wide, its width $\frac{3}{4}$ or slightly more of the length of the metatarsus of first leg. The area formed by the anterior lateral and anterior median eyes wider in front than behind and nearly twice as long as its posterior width, the median eyes about an eye's diameter apart; the anterior lateral eyes and the eyes of the posterior row like those of *A. kolbei* Purc. (Trans. S. A. Phil. Soc., v. 11, p. 354).

Legs much as in *A. kolbei*, but the tibia of *third leg* with 5-10 spines in the posterior dorsal band.

Labium with 2-4 apical teeth.

Abdomen not tuberculate above.

Total length 18 mm.; length of carapace 5.8, width $4\frac{1}{2}$.

Nests.—The silken tube is cylindrical, and always descends spirally to a depth of 6-8 cm. in the manner represented in the accompanying figure, which shows the nest in section seen with the hinge on the left. In the deeper part the tube is gradually widened, while at the upper end it becomes compressed and has an oval opening. The edges of the tube-lining are spread out horizontally on the surface of the ground, forming a flat rim about 1 mm. wide all round, except at the middle of the hinge. The latter is broad and situated along one of the longer sides of the oval rim. The lid, which is D-shaped in outline, is peculiar. Its upper surface is strongly but irregularly convex and covered with earth and a minute green vegetable growth and often also tiny pieces of moss.

The under surface is smooth and *concave right up to the edge*, which is quite sharp and fits against the outer edge of the outspread rim of the tube.

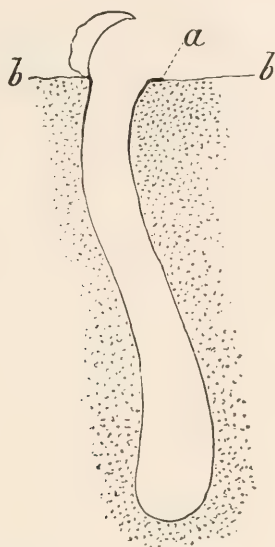


FIG. 4.—Section through trap-door nest of *A. spiricola* n. sp. (nat. size); *a*, edge of silken lining; *bb*, surface of ground.

Measurements of nest of the ♀ with young.—Width of lid and of rim of silken tube taken parallel to hinge 13 mm.; width of same taken at right angles to hinge 10; width of opening of tube $7\frac{1}{2}$ by $9\frac{1}{2}$; diameter of tube at 1 cm. from opening about $6\frac{3}{4}$ and near bottom $9\frac{1}{2}$; thickness of lid in centre 3; width of hinge $9\frac{1}{2}$; width of carapace of occupant $4\frac{1}{2}$.

3. ACANTHODON KENTANICUS n. sp.

Type.—1 ♀ (No. 12412) with nest, found by the Rev. F. C. Kolbe in open ground under an Acacia tree, near the village of Kentani, Cape Colony, in 1902.

♀. *Colour* pale greenish ochraceous, the yellow predominating in some parts, the green in others; carapace brown between the two groups of eyes; abdomen pallid (damaged above).

Carapace as long as the tibia, metatarsus, and $\frac{1}{4}$ — $\frac{1}{3}$ of the tarsus of fourth leg and as the patella, tibia, and $\frac{1}{3}$ of the metatarsus of first leg.

Ocular area long, much longer than wide, and extending backwards to almost midway between its anterior margin and the middle of the fovea; its width subequal to the length of the metatarsus of first leg. The area formed by the anterior lateral (frontal) and anterior median eyes wider in front than behind and very long, about 3 times as long as its posterior width; the median eyes small, about their own diameter apart; the lateral eyes much larger, very close together, and placed on a common tubercle, which is only shallowly grooved along the middle above, the visual axis less horizontal than in *kolbei* and *spiricola*. Posterior row of eyes with its posterior margin slightly procurved, the median eyes distinctly nearer to the laterals than to one another, the laterals large, about as far from the anterior margin of carapace as from one another.

Legs.—*First leg* with the tibia as long as the metatarsus and $\frac{2}{3}$ of the tarsus. *Tibia of third leg* with about 15 spines in the posterior dorsal band. *Legs* otherwise much as in *kolbei*.

Labium with 2 teeth.

Total length 18 mm.; length of carapace 5.8, width 4.9; length of ocular area 1.9.

Nest.—The tube is short ($4\frac{1}{2}$ cm. in depth) and perfectly straight, descending at a slight incline towards the hinge-side, as in *Stasi-mopus*. It is cylindrical and wide in the deeper part, but becomes narrower near the opening, which is only slightly oval. The lid is flat and rather thin but not flexible, resembling that of *kolbei*, the upper side being very rough and uneven, and the lower side smooth, flat and lined with white silk. The edge of the lid closes against the outspread rim of the tube-lining, as in the other species.

Measurements in millimetres.—Width of lid taken parallel to hinge $14\frac{1}{2}$ and at right angles to hinge 12 mm.; average thickness of lid $1\frac{1}{2}$; width of hinge $12\frac{1}{2}$; diameter of hole at 1 cm. from opening 9–10, near bottom 11.

4. ACANTHODON VERSICOLOR n. sp.

Type.—1 ♀ (No. 12001) found by Mr. D. L. Patrick on Baviaan Kopje, three miles east of Umtali, Mashonaland, in June, 1902.

♀. *Colour*.—Carapace deep brown, paler mesially behind; chelicerae reddish black; legs deep brown, the tibiae, metatarsi, and tarsi of the 2 anterior pairs and the tibia and tarsus of the pedipalps reddish to reddish black, dark, especially at the sides; femora of all the legs and of the pedipalps with the under surface and the sides pale yellowish, contrasting sharply with the dark brown colour

of the upper surface of the femora and of the under surface of the trochanters and patellæ; abdomen blackish, the under side paler.

Carapace as long as the tibia, metatarsus, and $\frac{1}{2}$ of the tarsus of fourth leg.

Ocular area wider than long, its width $\frac{2}{3}$ of the length of the first metatarsus. Area formed by the frontal eyes and the anterior median eyes of the posterior group parallel-sided and about $1\frac{1}{2}$ times as long as wide behind; the frontal eyes about $\frac{1}{2}$ an eye's diameter apart, with the visual axis inclined upwards at an angle of about 45° ; anterior median eyes of the posterior group much more than an eye's diameter apart. Posterior row of eyes with its hind margin straight, the median eyes small, much nearer to the laterals than to one another, their outer margins much further apart than those of the anterior median eyes; posterior lateral eyes large, their distance from the anterior margin of the carapace subequal to their distance from the posterior median eye of the other side.

Pedipalps spined as in *Gorgyrella namaquensis* (Trans. S. A. Phil. Soc., v. 11, p. 351).

Legs.—Tibia of *first leg* as long as the metatarsus and about $\frac{2}{3}$ of the tarsus. Tibia of *second leg* with only 3 external spines or spiniform setæ. Patella of *third leg* with about 4 stout spines overhanging the upper posterior part of the distal edge. All the *tarsi* spined below.

Total length 28 mm.; length of carapace 11; length of metatarsus of first leg $3\frac{3}{4}$.

5. ACANTHODON FRYI n. sp.

Type.—1 ♀ (No. 12756) found by Mr. Harold A. Fry at Johannesburg, Transvaal, between December, 1902, and March, 1903.

♀. *Colour*.—Carapace brown, paler mesially behind; chelicerae dark reddish; legs brown, the tibiæ, metatarsi, and tarsi of the 2 anterior pairs and the tibia and tarsus of the pedipalps darker; abdomen black, the under side paler.

Carapace as long as the patella, tibia, and $\frac{1}{2}$ the metatarsus of first leg, but slightly shorter than the tibia and metatarsus of fourth leg.

Ocular area wider than long, its width only very slightly less than the length of the metatarsus of first leg. Area formed by the frontal eyes and the anterior median eyes of the posterior group almost parallel-sided (only very slightly wider in front) and about twice as long as wide behind; the frontal eyes large, oval, nearly $\frac{1}{2}$ a long diameter apart and looking slightly upwards, the visual axes cutting

nearly at right angles, the common tubercle broadly grooved above. Posterior lateral eyes long, reniform, their anterior margins in a line with the posterior margins of the anterior median eyes and their posterior margins in a line with those of the posterior median eyes, their distance from the anterior margin of the carapace subequal to their distance from either median eye of the other side; the 4 median eyes forming a rectangle which is somewhat broader than long, the anterior medians small, much more than a diameter apart, the posterior medians ovate and a little shorter, their distance from the laterals about $\frac{1}{2}$ more than their distance from one another.

Legs.—Tibia of first leg as long as the metatarsus and $\frac{2}{3}$ of the tarsus. Tibia of second leg with about 5 external spines or spiniform setæ. Patella of third leg with 1–3 apical spines overhanging the upper posterior part of the distal edge and with a single spine nearer the middle of posterior upper surface (besides the anterior band). All the tarsi spined below.

Total length 35 mm. ; length of carapace 12 ; length of metatarsus of first leg 4.

GEN. GALEOSOMA n. g.

Upper part of abdomen with the cuticula very thick, hard and inflexible, forming a symmetrical oval piece of armour encasing the dorsal and upper part of the lateral surfaces and completely covering the spinners from above ; under side of abdomen soft-skinned, provided with a large glabrous scar on each side at a little distance in front of the larger spinners. Labium transverse, strongly truncated. Other characters as in *Acanthodon*.

Type: *Galeosoma scutatum* n. sp.

GALEOSOMA SCUTATUM n. sp.

Type.—1 ♀ (No. 9733) from Luipaards Vlei, Krugersdorp, Transvaal (October or November, 1901 ; *W. Watson*).

♀. *Colour* pale ochraceous, the carapace infuscated at the lateral margins of the thoracic portion, the cephalic portion also darkened laterally and at the fovea ; chelicerae light brown ; soft skin of abdomen pale yellowish, the hardened dorsal shield deep black to reddish black.

Carapace (measured across the edge of the ocular area) considerably shorter than the patella, tibia, and metatarsus of first leg.

Ocular area longer than wide, the area formed by the anterior median eyes of the posterior group and the frontal pair widest in front and $1\frac{3}{4}$ times as long as its width behind; frontal eyes large, much larger than the anterior median eyes. Posterior row with its posterior margin almost straight, the median eyes small, rotund, slightly further from the lateral eyes than from one another; the posterior lateral eyes large, strongly reniform.

Legs.—Tibia of first leg equal to the metatarsus and tarsus in length.

Abdomen.—Dorsal shield regularly oval (when seen from above), its length about $1\frac{1}{3}$ times its width and about $1\frac{2}{3}$ times the median length of the carapace; its lower edge convex in outline, when seen from the side, and quite entire behind and in front, the posterior margin thickened; surface of shield coarsely punctate, shiny, glabrous (except at the margin, which is hairy). Vertical anterior part of dorsal surface of abdomen not covered by the shield, the uncovered part slightly exceeding half the shield in length. Posterior scars on under side of abdomen obliquely transverse, broader towards the sides of the body and with the posterior margins sinuated in the middle.

Labium with two rows of teeth at apex (7, 2). *Coxæ of pedipalps* toothed over the greater part of the under surface, the teeth very minute posteriorly but larger at the anterior border, especially at each end of the segment.

Total length $16\frac{1}{2}$ mm.; length of carapace (measured across edge of ocular area) $5\frac{3}{4}$, width $5\frac{3}{4}$; length of abdominal shield $9\frac{1}{2}$, width 6.8.

GEN. PAROMOSTOLA n.g.

Intermediate between *Homostola* Sim., and *Hermachastes* Poc., agreeing with the former in having the fovea of the carapace strongly procurved, the chelicerae provided with two well-developed rows of teeth below (the outer row reaching nearly to the distal end of the groove and composed of 5 or 6 strong teeth), the inner (5–6) spines of the rastellum very stout, strong, and rather blunt, and the labium less than twice as wide as long and narrowed a little in front. Posterior sternal sagilla moderately large, about as large as in *Homostola* but much more lateral, their distance apart slightly exceeding twice their length and their distance from the lateral margin slightly less than their length. Inferior claw of tarsi well developed.

Type.—*Paromostola abernethyi* n. sp.

PAROMOSTOLA ABERNETHYI n. sp.

Type.—1 ♀ or juv. (No. 12704) from the Kentani District, Cape Colony, collected by Mr. H. P. Abernethy, and presented by the Rev. F. C. Kolbe.

Carapace as long as the tibia and $\frac{3}{4}$ of the metatarsus of fourth leg and subequal to the tibia, metatarsus, and tarsus of first leg; colour pale yellowish, the thoracic portion and the lateral borders and median band of the cephalic portion lightly infuscated. Ocular area considerably more than twice as wide as long.

Abdomen and spinners as in *Homostola zebrina* Purc.

Legs pale yellowish. *Tarsi* I and II scopulate to base. *Metatarsus* I scopulate in distal half; II with a few scopular hairs distally; I and II with 1–2 inner and 3 outer stout spines below. *Tibiae* I and II with 2–3 long, slender outer spines below (none at apex). *Patella* III with an anterior row of 3 strong spines. *Claws* with 2–3 longish teeth at the base, those of the anterior legs also with 2–3 minute teeth at the middle, which are apparently absent in the outer claw of the posterior leg.

Labium with 9 teeth in 3 rows. *Coxæ of pedipalps* with many teeth at the base

Total length $13\frac{1}{2}$ mm.

GEN. HERMACHASTES Poc.

1. HERMACHASTES TRICALCARATUS n. sp.

Types.—4 ad. ♂ ♂ (No. 11724) from Steenberg's Cove, 1 ad. ♂ (No. 11996) from Stompneus, and 3 ad. ♂ ♂ (No. 11723) from Soldaten Post, all at St. Helena Bay, Malmesbury Division, collected by Mr. J. E. C. Goold in May, 1902.

♂ ♂. *Colour* pale ochraceous; carapace with faint greenish or fuscous patches radiating inwards from the margins, the cephalic portion ochraceous, with a dark stripe along middle and one at each lateral margin; abdomen with the median black or blackish brown stripe abbreviated posteriorly and widened anteriorly into a large patch and flanked on each side by a row of short, obliquely transverse, similarly coloured stripes, which do not unite with the median stripe; under surface of abdomen with a dark spot a little in front of the larger spinners, the sides with a larger spot just above these spinners but otherwise without spots or stripes; distal part of first leg reddish.

Labium with 0–4 minute teeth in front. *Coxæ of pedipalps* gene-

rally with a group of minute teeth (up to 20) at the base, rarely almost muticous.

Posterior spinners with the apical segment short and scarcely or slightly longer than $\frac{1}{2}$ the length of the penultimate segment (measured below).

Pedipalps.—Spine of palpal organ shorter than the bulb, curved and moderately slender (much slenderer than in *collinus* and nearly as in *lightfooti*).

Legs.—*Tarsi* muticous. *Metatarsus* I rather strongly curved; the under side strongly concave in the proximal half, straight in the distal half, with 2 (sometimes 1) inner and 3 (sometimes 2 or 4) outer spines; the inner surface besides with 2 (sometimes 3) large, very strong, curved spines near the middle, a smaller spine near the apex and 1-2 (rarely 0) mesial ones along the upper edge; the outer surface with 1-2 additional spines, and the dorsal surface often with a mesial spine. *Tibia* I stout, its length along upper side about $2\frac{1}{4}$ - $2\frac{1}{2}$ times its height at distal end, where it is considerably thickened below; the distal tubercle strong, bearing 2 very stout, more or less pointed spurs, of which the outer one is a little narrower and longer than the very broad inner one but much stouter than the outer apical spine of the under surface, the tubercle conically produced between the 2 spurs; proximal tubercle bearing a very stout pointed spur with distinct sigmoid curvature; tibia numerous spined and generally with a mesial and a basal spine along inferior inner edge. *Tarsi* I-III scopulate to the base, the scopulae divided by a narrow band of fine setae in I and II and by a band of longer setae in III; *metatarsus* I rather thinly scopulate in distal half only, II in distal three-fourths only, III without scopula or at most with a few distal scopular hairs.

Total length 11-14 mm.

2. HERMACHASTES GOOLDI n. sp.

Types.—3 ad. ♂♂ (No. 11706) from Stompneus, St. Helena Bay, Malmesbury Division, collected by Mr. J. E. C. Goold in May, 1902.

♂♂. Closely resembling the foregoing species but slightly smaller.

Colour.—Transverse stripes on abdomen meeting or nearly meeting in the median line above.

Legs.—*Metatarsus* of first leg with 1-2 inner and 3 outer spines below; its inner surface besides with 1, sometimes 2, large curved spines near the middle, a smaller spine near the apex, and generally

also a mesial one along the upper edge; the outer surface with 1-2 additional spines, and the dorsal surface generally with a mesial spine. *Tibia* of first leg slenderer than in the foregoing species and less thickened below distally, its length along dorsal side nearly three times its height at distal end; the distal tubercle bearing a broad, stout, pointed, external spur and, at its base, a longer stout spine which is only slightly or scarcely at all stouter than the apical outer spine of the under surface; proximal tubercle more distal than in the foregoing species, and bearing a stout spur with sigmoid curvature. *Metatarsus* of first leg scopulate in distal two-thirds, that of third leg with small distal patch of scopular hairs, sometimes extending over a third of the length of the segment.

Total length $10\frac{1}{2}$ - $11\frac{1}{2}$ mm.

3. HERMACHASTES SCHREINERI n. sp.

Specimens.—Over a hundred females and young (types; No. 11793, &c.) from Hanover, collected between September, 1901, and March, 1902, by Mr. S. C. Cronwright Schreiner, and also a few from the neighbouring farms Vlagkop and Poortjesfontein, 5-6 miles north of Hanover. No adult ♂ was found.

♀ ♀ (*Adult*). *Colour*.—Carapace pale yellowish or greenish yellow, weakly infuscated in places, particularly along the lateral margins of the cephalic portion; femora of legs pale greenish yellow, the remaining distal segments yellow, the patellæ and tibiæ often bright yellow; abdomen pale yellowish, the upper surface brownish black in anterior half, the posterior part strongly marked with the usual tree-pattern, the posterior bars not reaching the ventral surface in front of the spinners; ventral surface of body pale yellowish, the abdomen generally with a brownish black spot in front of each lateral spinner.

Carapace a little or considerably longer than the fourth metatarsus and tarsus, but subequal to or a little shorter than the first tibia and metatarsus.

Chelicerae with the inferior margin (measured along the groove) shorter than the sternum; rastellum strong.

Labium with 5-8 apical teeth in 1-2 rows. *Coxæ of pedipalps* with 16-30 basal teeth.

Legs.—*Tibia* I equal to the metatarsus in length. *Tarsi* not spined, the 2 anterior ones scopulate. *Metatarsi* I and II with 1-2 inner and 3 outer (the apical sometimes double) strong spines below, scopulate in distal part. *Tibiæ* I and II without apical spines,

but with 0-2 long setiform outer spines below; IV spined only below and on the inner surface above. *Claws* with 3-5 long teeth in the basal row furthest from the axis of the leg; the row nearest this axis composed of 5-6 teeth in the anterior legs, but absent or represented by 1-2 minute rudiments on the outer claw and by 1-3 minute teeth on the inner claw of the fourth leg.

Posterior spinners with the apical segment short and subhemispherical, only about $\frac{1}{2}$ - $\frac{3}{4}$ as long as the penultimate segment.

Total length of a large ♀ 23½ mm.; length of carapace 7½, width 6; length of tibia of first leg 4.

Nests.—Mr. Schreiner, who dug up large numbers of the nests, sent me a couple with the surrounding earth, and the following description is taken from his notes* :—

The spider constructs its tubular hole in firm soil, avoiding loose sand and choosing sometimes bare ground and sometimes grass or the middle of a small bush. The hole is about 4-6 inches (10-15 cm.) deep, generally fairly straight and lined inside with web.† At the surface the hole is surmounted by a turret or tube composed of grass, small sticks, seeds, &c., bound together by webbing and projecting for a short distance (generally $\frac{1}{2}$ -1 inch) above the level of the surrounding ground. The top edge of the turret is irregular. Sometimes the hole has a forked entrance and sometimes a blind side chamber is present, but this is apparently exceptional. The hole is open at the top, although occasionally Mr. Schreiner observed a fine film of web stretched across the base of the turret.

I have subsequently observed similar nests at the Hot Baths, Montagu, made by the ♀ of *H. validus* Purc.

4. HERMACHASTES FLAVOPUNCTATUS n. sp.

Types.—2 ex. (No. 12695) from the Hogsback, Amatola Range, found in a rotten tree-trunk by Mr. F. A. Pym in 1902.

♀ ♀. *Colour* olivaceous, with ochraceous streaks; chelicerae nearly black; legs fusco-olivaceous, but the patellæ and the naked strips on the tibiæ and metatarsi ochraceous; abdomen deep purplish black, with numerous, conspicuous, roundish, pale yellow spots above and at the sides, but without trace of the tree-pattern;

* An account of these nests has already been published by Mr. Schreiner in a very interesting paper, entitled "Some Arachnids at Hanover, Cape Colony" (*Popular Science Monthly*, v. 62, p. 152, Dec., 1902).

† In the specimens sent me the hole is slightly inclined to the perpendicular.

under side of abdomen pale yellowish, mottled with black; sternum and coxæ pale to reddish ochraceous.

Carapace distinctly longer than the fourth metatarsus and tarsus, and as long as the tibia, metatarsus, and $\frac{2}{3}$ of the tarsus of first leg.

Chelicerae with the inferior margin (measured along the groove) considerably shorter than the sternum; rastellum well developed, composed of a row of stout spines extending over whole anterior margin, the outer spines acuminate at apex.

Labium with about 28–32 teeth in 3–4 rows occupying almost the entire anterior half. *Coxæ of pedipalps* with 38–52 teeth at base.

Posterior sternal sagilla larger than usual, their distance apart a little less or a little more than twice their own length.

Legs.—Tibia I very distinctly longer than the metatarsus. *Tarsi* not spined, the 2 anterior pairs scopulate. *Metatarsus* I with 0–1 inner apical and 3 outer spines, scopulate over $\frac{3}{4}$ of its length; II with 1–2 inner and 3 outer spines, scopulate in distal part only. *Tibiae* I and II unspined below or with 1–3 outer, often setiform spines (including sometimes an apical spine). *Claws* with 3–4 teeth in the basal row furthest from the axis of the leg in the anterior and 2–3 in the fourth pair of legs; the more distal row nearest the axis composed of 2–3 teeth in all the legs.

Posterior spinners with the apical segment conical, subequal to the penultimate in length.

Total length 17 mm.; length of carapace 6, width $4\frac{1}{2}$.

GEN. HERMACHA E. Sim.

1. HERMACHA BREVICAUDA n. sp.

Types.—2 ad. ♂♂ (Nos. 4453 and 8898) from the slopes on the outskirts of Capetown at the foot of Devils Mountain (July; *F. Treleaven* and *W. F. P.*).

♂♂. *Colour*.—Carapace dark mahogany brown, with pale silky hairs; chelicerae nearly black, with pale hairs and black bristles; legs ochraceous, except the femora and coxæ, which are pale olivaceous or yellowish olivaceous; abdomen pale yellowish below, the upper surface and sides black, speckled with numerous, small, pale yellowish, isolated or confluent spots, and with some larger yellow markings on dorsal surface, the black forming distinct or indistinct oblique lines behind on each side and a longitudinal median one.

Carapace as long as the metatarsus and $\frac{2}{3}$ of the tarsus of fourth leg and as the tibia and metatarsus of first leg, but much longer than the metatarsus and tarsus. Anterior row of eyes strongly procurved, the anterior margins of the median eyes (viewed from above) in a line with the centres of the large lateral eyes; posterior row slightly recurved, the median eyes subtriangular, longitudinal, smaller than the anterior medians and posterior laterals; the latter eyes elongate, as long as or longer than the anterior medians but much smaller than the anterior laterals and distant from these about $\frac{1}{2}$ – $\frac{3}{4}$ of their own length.

Labium muticous. *Coxæ* of *pedipalps* with a large, numerously toothed area at base.

Posterior *spinners* short, much shorter than the sternum and about as long as the genital segment on under side of abdomen, the distal segment a little longer than the penultimate one (seen from below), these 2 segments together subequal to the stout basal segment; anterior spinners short, only about their own diameter apart.

Rastellum composed mostly of rather stout setiform spines.

Pedipalps much as in *H. lanata* Purc. (Trans. S. A. Phil. Soc., v. 11, p. 374); the process of the palpal organ reaching nearly or quite to the base of the tibia.

Legs much as in *lanata*, but some of the spines absent. *Metatarsus* I with 0–2 straight spines along middle of inner surface. *Tibia* I very robust, slightly longer than the metatarsus, furnished with 0–1 internal spine below and only 1–2 nearer the upper edge, the outer surface without any superior spines. *Metatarsus* I scopulate in the distal two-thirds, II scopulate to the base, these scopulæ entire; III with thin scopula in distal third; IV with a few scopular hairs distally.

Total length $14\frac{1}{2}$ mm.; length of carapace $6\frac{1}{2}$; length of metatarsus of first leg 3.

2. HERMACHA EVANESCENS n. sp.

Specimens.—Over 40 females and young (types; No. 11833, &c.), from Hanover; also 14 from Vlagkop, 5–6 miles north of Hanover 1 from Eierfontein, 8–9 miles west of Hanover, and 9 from Poortjesfontein, 5–6 miles north of Hanover (the latter collected by Mr. T. Nesor).

♀ ♀ (Adult).—*Colour* of legs and carapace reddish yellow to greenish yellow, the carapace covered with fine yellow or olivaceous hairs; abdomen black above and on upper part of the sides, more or

less speckled, at least on the sides and posteriorly, with pale yellowish, so as to form the usual tree-pattern; under surface of abdomen and lower part of the sides pale yellowish and provided with a black spot on each side posteriorly; sternum and coxæ reddish yellow or the posterior coxæ pale ochraceous.

Carapace equal to or even considerably shorter than the fourth metatarsus and tarsus and as long as the tibia, metatarsus, and $\frac{1}{2}$ – $\frac{1}{3}$ of the tarsus of first leg. Fovea always distinctly procurved. Posterior lateral eyes equal to or smaller than the anterior laterals and almost touching or a little remote from them; posterior median eyes mostly small, subrotund and distant about $\frac{1}{2}$ their own diameter from the laterals or almost touching them.

Rastellum composed of stout setæ, intermingled with fine ones.

Labium with 0–2 apical teeth. *Coxæ of pedipalps* with a narrow strip of about 30–45 teeth at base.

Legs.—*Tibia* I subequal to or slightly longer than the metatarsus, with 1–3 apical and 0–2 other outer spines or spiniform setæ below and 0–1 at inner upper edge. *Metatarsus* I unspined or with 1–3 spines near base below (sometimes with an apical one as well); I and II densely and broadly scopulate to the base, III sparsely scopulate beyond the middle, IV with a few scopular hairs (sometimes almost absent) at apex. *Tarsi* I and II with dense undivided scopula, III with rather dense scopula, divided by a broad band of setæ, IV broadly setose below but scopulate on each side. Inferior claw of anterior legs rather small, hidden amongst the distal hairs.

Posterior spinners a little shorter or longer than the sternum but not exceeding the sternum and labium together; apical segment about $\frac{1}{4}$ – $\frac{1}{3}$ longer than the penultimate segment and a little shorter than the basal segment.

Total length 30 mm.; length of carapace $10\frac{1}{3}$, width 8; length of tibia of first leg $4\frac{2}{3}$.

Nests.—According to Mr. Schreiner* the nests consist merely of a deep web-lined hole, and are built in hard brack ground, which cakes like a brick when dry. The holes are fairly straight and vary like those of *Hermachastes schreineri* n. sp., but are deeper. They differ from those of the latter species, however, in never having a rim of sticks, &c., round the opening, which is flush with the surrounding surface.

* Mr. Schreiner has already published some of his observations on these nests in the *Popular Science Monthly*, v. 62, p. 153, December, 1902.

FAMILY BARYCHELIDÆ.

GEN. HARPACTIRELLA * Purc.

1. HARPACTIRELLA HELENÆ n. sp.

Specimens.—2 ad. ♂ ♂ (types; No. 11710) and many adult ♀ ♀ and young from Stompneus, St. Helena Bay, Malmesbury Division, collected by Mr. J. E. C. Goold in May and June, 1902. The adult ♂ ♂ were found in May.

♂ ♂. *Colour* as in *H. treleaveni* Purc. (Trans. S. A. Phil. Soc., v. 11, p. 341, 1902), except that the 2 spots between the posterior lung-books are absent; under side of sternum and coxæ pale ochraceous to greenish yellow.

Carapace as long as the metatarsus and $\frac{1}{3}$ of the tarsus of fourth leg and as the tibia and $\frac{2}{3}$ of the metatarsus of first leg.

Rastellum composed of fine setæ.

Legs.—Tibia of first leg 4 times as long as high in the middle, very distinctly longer than the metatarsus and also than the distance from the centre of the fovea to the anterior margin of the carapace; the metatarsus lightly but distinctly curved, its length almost equal to the distance from the fovea to the anterior margin of the ocular tubercle. Spines of legs as in *treleaveni*. First leg (including the coxa) much shorter than the fourth (by nearly the length of the fourth tarsus). Scopulæ as in *treleaveni*.

Pedipalps.—Palpal organ with the spine slender and terete, a little longer than the bulb, the distal part filiform and curving outwards.

Posterior spinners longish, the apical segment (seen from below)

* This genus was originally placed in the *Theraphosidæ* on account of the feebleness of the rastellum, which generally consists of rather slender setæ in the ♂, but of stiff and spiniform setæ and frequently also some slender spines in the ♀. It is closely related to *Brachionopus* Poc., from which it differs in the stronger development of the scopulæ of the 2 anterior pairs of legs. These scopulæ in the ♀ are dense and broad, extending at least half-way up the sides on the tarsus and distal half of the metatarsus, so as to be plainly visible from above. They are quite entire, and that on the metatarsus is quite as long as that on the tarsus. The scopula of the fourth tarsus is imperfectly or more or less distinctly divided along the middle by a row or narrow band of fine black setæ in some of the species (including the type), but in *domicola* n. sp. it is divided by a broader band; that of the third metatarsus may be finely divided or entire. The labium bears from 10 to over 30 apical granules in 2-4 rows, and the maxillæ have a large patch at the base. The sternum is oval, and $\frac{1}{5}$ - $\frac{1}{3}$ longer than broad. The claws of the legs are not toothed (in the first pair). The distance of the ocular tubercle from the anterior margin varies from $\frac{1}{5}$ to over $\frac{1}{3}$ of its length.

subequal to the penultimate segment and to the ocular tubercle in length.

Sternum as in *treleaveni*.

♀ ♀. Closely resembling *treleaveni* in most respects, except that the ocular tubercle is slightly further back, being about $\frac{1}{3}$ of its length from the anterior margin of carapace. Carapace subequal to or a little shorter than the metatarsus and tarsus of fourth leg and equal to the tibia, metatarsus, and $\frac{1}{2}$ – $\frac{3}{4}$ of the tarsus of first leg. Tibia of first leg relatively longer than in *treleaveni*, its length about $2\frac{3}{4}$ times its height in the middle. First leg (including coxa) much shorter than the fourth (by almost the whole length or by more than the length of the tarsus of the latter).

The carapace has more yellowish hairs, which frequently form radiating stripes, while the younger individuals are as a rule much darker than those of *treleaveni*.

Total length ♂ ♂ 14–17, large ♀ 22 mm.

2. *HARPACTIRELLA MAGNA* n. sp.

Type.—1 ♀ (No. 5248) from Dunbrody, on the Sundays River, Uitenhage Division (*Rev. J. A. O'Neil*, 1899).

Closely allied to *H. lightfooti* Purc.

♀. *Colour* of carapace and limbs brownish yellow, the 3 distal segments of the legs more yellowish; hairs on carapace pale yellowish, intermingled with very few black ones; those on the limbs greyish yellow; abdomen pale yellowish, the dorsal surface and upper part of the sides strongly marked with black reticulations and provided with the usual tree-pattern posteriorly, the hairs on the paler parts pale golden yellow; ventral surface without conspicuous spots; sternum brown.

Carapace subequal to the metatarsus and tarsus of fourth leg, and only slightly longer than the tibia and metatarsus of first leg. Ocular tubercle about $\frac{1}{5}$ of its length from anterior margin.

Rastellum composed of setæ, but with some stout truncated spines (broken setæ?) at inner part.

Legs.—Tibia of first leg slightly less than 3 times as long as high in the middle, its length slightly exceeding that of the metatarsus and considerably less than the distance from the fovea to the hind margin of the ocular tubercle. First leg (including coxa) shorter than the fourth leg (by $\frac{1}{2}$ the fourth metatarsus). Legs spined much as in *treleaveni*. Scopulæ of fourth tarsus and third metatarsus practically entire.

Labium with over 30 teeth in 3-4 rows.

Apical segment of *spinners* long and terete, about $\frac{1}{2}$ longer than the ocular tubercle and $\frac{1}{2}-\frac{3}{4}$ longer than the penultimate segment.

Total length 35 mm.; length of carapace $9\frac{3}{4}$, width $7\frac{1}{2}$; length of first leg $29\frac{1}{2}$.

3. HARPACTIRELLA DOMICOLA n. sp.

Specimens.—(a) 1 ♀ (type; No. 8897) found on Bonnie Vale Farm at Bushmans Drift, on the Breede River, Swellendam Division (near Ashton), by Mr. Charles Groom, in 1901.

♀. *Colour* of carapace brown, the limbs more yellowish, the hairs on the former mostly black but the longer ones pallid and radiate; abdomen pale fulvous, with the usual black reticulations and pattern above, the ventral surface with faint median black line and with a black spot on inner side of each posterior lung-book.

Carapace a little longer than the metatarsus and tarsus of fourth leg, and as long as the tibia, metatarsus, and $\frac{2}{3}$ of the tarsus of first leg. Ocular tubercle distant at least $\frac{1}{3}$ of its length from the anterior margin; the posterior median eyes much smaller than the anterior medians or posterior laterals.

Rastellum feeble, composed of long setæ.

Legs.—Tibia of first leg about $2\frac{1}{2}$ times as long as high, its length a little exceeding that of the metatarsus and considerably less than the distance from the fovea to the hind margin of the ocular tubercle. First leg much shorter than the fourth (by the length of the fourth tarsus). Scopula of third metatarsus practically entire; that of fourth tarsus very conspicuously divided (except perhaps quite distally) by a thick band of long black setæ. Spines as in *treleaveni*, except on metatarsus II, which has an inferior apical spine.

Labium with 12 apical teeth in 2 rows.

Apical segment of *spinners* conical, subequal to the penultimate segment in length but slightly shorter than the ocular tubercle.

Total length 25 mm.; length of carapace 9, width $6\frac{3}{4}$; length of first leg 25.

(b) 1 ♀ (No. 12393) found in a trap-door nest at Ashton by myself in November, 1902. This specimen has all the metatarsi spined at the apex, but the under surface of the abdomen is without black markings.

Nest a cylindrical tube, 17-18 cm. (7 inches) deep, widening slightly towards the opening but not funnel-shaped, strongly inclined and descending towards the hinge-side at an angle of nearly 45° , much as in *Gorgyrella* (Ann. S. A. Mus., v. 3, pl. 1, fig. 3). Lid

flat, oval in outline, but broadly truncated at the hinge, its diameter taken at right angles to the hinge equal to the diameter taken parallel to the hinge (each being 19 mm.).

The under side of the lid is lined with white silk, but the upper surface is rough and covered with clay. At the edge the lid broadly overlaps the edge of the hole. Width of hinge about 13 mm.; diameter of hole at 1 cm. from opening 13 mm.; width of hole at opening 15 mm.; width of carapace of occupant $5\frac{1}{2}$ mm.

Synoptic Table of the Adult Females of HARPACTIRELLA.

a. Apical segment of spinners (measured below) $\frac{1}{2}$ – $\frac{2}{3}$ longer than the penultimate segment, and longer than the ocular tubercle.

a^1 . Colour brownish yellow. First leg decidedly shorter than the fourth (by $\frac{1}{2}$ the fourth tarsus). Uitenhage Division *H. magna* n. sp.

b^1 . Colour blackish brown. First leg subequal to the fourth or only slightly shorter (by at most $\frac{1}{3}$ of the fourth tarsus). Paarl Division

H. lightfooti * Purc.

b. Apical segment of spinners subequal to the penultimate segment in length, and shorter than, or at most only slightly longer than, the ocular tubercle.

a^2 . Scopula of fourth tarsus divided along the middle by a very conspicuous and rather thick band of longish black setæ. Metatarsus II spined at apex. Posterior median eyes very small, much smaller than the laterals or the anterior medians. Robertson and Swellendam Divisions

H. domicola n. sp.

b^2 . Scopula of fourth tarsus entire or divided by a fine band or row of slender setæ. Metatarsus II not spined. Posterior median eyes generally only slightly smaller than the anterior medians.

a^3 . Carapace as long as the tibia and metatarsus of first leg. Scopula of fourth tarsus undivided. Prince Albert *H. karrooica* Purc.

b^3 . Carapace as long as tibia, metatarsus, and $\frac{2}{3}$ – $\frac{3}{4}$ of the tarsus of first leg. Scopula of fourth tarsus imperfectly or more or less distinctly divided by a line of fine setæ.

a^4 . Ocular tubercle further forward, about $\frac{1}{3}$ of its length from the anterior margin. First leg shorter than the fourth by $\frac{1}{2}$ – $\frac{2}{3}$ of the fourth tarsus. Cape Peninsula *H. treleaveni* Purc.

b^4 . Ocular tubercle further back, about $\frac{1}{3}$ of its length from the anterior margin. First leg shorter than the fourth by almost the whole length or more than the length of the fourth tarsus. Malmesbury Division *H. helene* n. sp.

* *H. lightfooti* may possibly be the ♀ of *longipes* Purc., to which it is closely related. The female specimens doubtfully referred to *longipes* in a previous paper (Trans. S. A. Phil. Soc., v. 11, p. 344) do not really belong to that species.

GEN. BRACHIONOPUS Poc.

1. BRACHIONOPUS ANNULATUS n. sp.

Type.—1 ex. (No. 12752) from Kentani, Transkei (*Miss A. Pegler*).

Colour brown, the legs lightly infuscated; hairs on carapace mostly greenish black, tipped with orange; abdomen covered with orange-tipped hairs intermingled with black ones, the latter forming the usual pattern of stripes above, the under side spotted with black and with a median black line; legs yellowish red at the apex and base of the joints; sternum reddish yellow, with faint median darker stripe.

Carapace as long as the patella, tibia, and slightly over $\frac{1}{2}$ the metatarsus of first leg, but shorter than the fourth tibia and metatarsus. Eyes much as in *B. robustus* Poc.

Legs.—*Tarsi* all with the scopula distinctly divided by a band of black setæ. *Metatarsi* I and II with the scopula confined (except at the tip) to the under side of the segment, and provided with 3–4 black setæ along the middle but not distinctly divided, the length of the scopula very much less than that of the tarsus; III and IV with a row or band of setæ along the middle; I and II with a single spine at apex; III and IV with several apical, besides some other spines. *Tibiæ* I and II sometimes with an apical spine.

Labium with a single apical tooth. *Coxæ of pedipalps* with a small basal patch of 7–17 teeth.

Spinners very short, the 2 apical segments subequal in length and together equalling the basal segment.

Total length $13\frac{1}{2}$ mm.

2. BRACHIONOPUS TRISTIS n. sp.

Type.—1 ex. (No. 4197) from Barberton, Transvaal (*J. P. Cregoe*, December, 1897).

♀ or *juv.* *Colour* brown; hairs on carapace pale yellowish, mostly darkened at base; abdomen covered with yellowish hairs mingled with brown ones, the under side pale yellowish, with stripes of dark brown hairs; sternum reddish yellow, with faint median infuscate stripe; legs nearly concolorous.

Carapace as long as the patella, tibia, and $\frac{2}{3}$ of the metatarsus of first leg.

Legs, spinners, and eyes much as in the previous species.

Labium with 8 apical teeth. *Coxæ of pedipalps* with about 26–28 teeth at base.

Total length $13\frac{1}{2}$ mm.

FAMILY DIPLURIDÆ.

GEN. THELECHORIS Karsch.

THELECHORIS AUSTRALIS n. sp.

Type.—1 ♀ (No. 8899) from Dunbrody, on the Sundays River, Uitenhage Division (*Rev. J. A. O'Neil*).

♀. *Colour* yellowish brown; carapace with appressed, pale yellowish, silky hairs, and narrow radiating dark stripes, the lateral and anterior margins also narrowly infuscated, the ocular tubercle black; chelicerae, the tibia and tarsus of pedipalp and the tibia and metatarsus of first leg dark reddish brown; labium and coxæ of pedipalps broadly white along anterior margin; abdomen densely covered with dark olive-brown hairs; posterior spinners black-ringed at apex of basal and mesial segments; the anterior spinners pale yellowish.

Carapace slightly longer than the tibia, metatarsus, and $\frac{1}{2}$ the tarsus of first leg, and as long as the metatarsus and $\frac{2}{3}$ of the tarsus of fourth leg. Ocular area about twice as wide as long. Anterior row of eyes (viewed from above) distinctly procurved, the lateral eyes large, oval; posterior row straight, the median eyes subtriangular, longitudinal, about as long as the anterior medians and very close to the posterior laterals; the latter eyes oblong, much larger than the medians, but considerably smaller than the anterior laterals and very close to these.

Chelicerae with a single row of teeth below. *Labium* muticous.

Legs IV, III, I, II. Metatarsus I considerably longer than the tibia. All the tarsi, metatarsi, and tibiae spined.

Median length of *sternum* slightly exceeding its width.

Posterior *spinners* about 3 times the median length of sternum, the 2 basal segments subequal in length (measured below), the distal segment long, flexible, subannulated at least near apex, its length slightly less than that of the 2 basal segments together, but almost $1\frac{1}{2}$ times the median length of the sternum.

Total length 16 mm.; length of carapace 6, width 5; length of metatarsus of first leg $2\frac{3}{4}$; length of spinners $9\frac{1}{4}$.

GEN. EVAGRUS Auss.

EVAGRUS ATROPURPUREUS n. sp.

Type.—1 ex. (♀ or young; No. 3906) found by me under a stone at the village of Prince Albert in September, 1896.

Colour brownish ochraceous to pale ochraceous; carapace with short, radiating, infusate stripes and infusate lateral borders; chelicerae brownish; femora of legs more or less infuscated, striped longitudinally with pale ochraceous, the inner and under surfaces of the 2 anterior pairs pale yellowish, distal segments of first 2 pairs also more or less browned; coxæ, sternum, &c., pale ochraceous; abdomen dark purplish, the under side along the middle, the lung-opercula and the anterior spinners pale yellowish; posterior spinners darkened, the apical segment paler, white distally, the 2 basal segments black-ringed at the apex, the mesial segment and the distal half of the basal segment thickly spotted with white on ventral surface.

Carapace oval, considerably longer than wide. Posterior row of eyes with the hind margin in a slightly procurved line (viewed from above), the lateral eyes large, much larger than the medians and more than their own length distant from the anterior margin of carapace; posterior row straight, the median eyes somewhat oval, slightly larger than the anterior medians and very close to the posterior lateral eyes; the latter as large as the anterior laterals and almost touching them.

Legs I and II with the femora, patellæ, and tibiæ very stout, compressed. Tarsi with 1-2 spines below but not scopulate. Metatarsus I with 2 rows of 3 stout spines each below and another row of 3 spines along inner surface. Tibia I with 3 apical inferior spines, one outer inferior spine near middle, and 2 inner dorsal spines. Patella I not spined.

Sternum longish oval. *Labium* considerably wider than long, muticous like the coxæ of pedipalps.

Posterior spinners stout and short, half as long as the abdomen and about equal to the sternum and half the labium; the basal segment longest, the distal segment subequal to the mesial segment and slenderer.

Total length 8 mm.; length of carapace $3\frac{1}{2}$, width $2\frac{1}{3}$; length of metatarsus of first leg 1; length of posterior spinners 2.

FAMILY LYCOSIDÆ.

Up to the present some 32 species of *Lycosidæ* have been described or recorded from South Africa, but some of these are certainly synonyms and others possibly wrongly identified. The number of good species are represented approximately as follows: *Anomalomma*

(2 spp.), *Artoria* (1 sp.), *Evippa* (1 sp.), *Lycosa* (15 spp.), *Ocyale* (2 spp.), *Pardosa* (2 spp.), *Zenonina* (1 sp.), and 2 spp. of *Lycosa* which I now place in a new genus (*Pterartoria*), making a total of 26 species. To these I now add 33 new species and 1 new variety, viz., *Anomalomma* (2 n. spp.), *Artoria* (1 n. sp.), *Lycosa* (12 n. spp.), *Pardosa* (7 n. spp. and 1 n. var.), *Trabæa* (4 n. spp.), and the 2 new genera, *Proevippa* (1 n. sp.) and *Pterartoria* (6 n. spp.).

Key to the South African Genera.

a. Body and legs with plumose hairs * (without scales).

a¹. Carapace elongate. Chelicerae with 2 inferior teeth. Tarsi not scopulate.

a². Cephalic region distinctly elevated *Proevippa* n. g.

b². Cephalic region not elevated *Anomalomma* E. Sim.

b¹. Carapace normal. Chelicerae with 3 inferior teeth. Anterior tarsi scopulate laterally *Pterartoria* n. g.

b. Body and legs with finely ciliated hairs or with scales, but no plumose hairs.

a³. Labium reaching up to or beyond middle of maxillæ.

a⁴. Third leg longer than the first. Anterior row of eyes recurved
Ocyale Aud.

b⁴. Third leg shorter than the first.

a⁵. Sides of head sloping *Lycosa* Latr.

b⁵. Sides of head vertical, at least in the lower part. Anterior row of eyes strongly procurved.

a⁶. Anterior median eyes about as far from the anterior laterals as from one another *Artoria* Thor.

b⁶. Anterior median eyes much further from the anterior laterals than from one another *Trabæa* E. Sim.

b³. Labium short, not reaching to the middle of the maxillæ. Sides of head vertical, at least in lower part.

a⁷. Cephalic region not elevated. Body covered with hairs
Pardosa C. Koch.

b⁷. Cephalic region distinctly elevated. Body covered with scales.

a⁸. Abdomen oblong. Chelicerae with 2 inferior teeth . . *Evippa* E. Sim.

b⁸. Abdomen amplified and truncated behind. Chelicerae with 3 inferior teeth *Zenonina* E. Sim.

* These hairs are most easily detected by examining the metatarsus of a leg under a cover-glass with a compound microscope.

GEN. ANOMALOMMA E. Sim.

1. ANOMALOMMA SCHREINERI n. sp.

Specimens.—(a) 31 ♀ ♀ and 3 ♂ ♂ (types ; Nos. 9431, 11755, 11785, &c.) from Hanover, and several specimens from Vlagkop, 5–6 miles north of Hanover, collected by Mr. S. C. Cronwright Schreiner.

♀ ♀. *Carapace* more or less infuscated laterally and clothed with black hairs, the broad yellowish median band clothed with yellow hairs ; submarginal stripes indicated by a few yellowish spots or almost absent ; no marginal band of white hairs present. Anterior median *eyes* generally with their lower edges slightly lower than the line joining the upper edges of the anterior lateral eyes, the latter eyes a little nearer to the edge of the carapace than to the eyes of the second row ; posterior quadrangle a little more transverse than in *A. albiventre* E. Sim., the eyes of the second row also relatively larger, considerably larger than the posterior eyes.

Abdomen coloured much as in *albiventre* and clothed with similar plumose hairs ; the dorsal surface fulvous yellow, with a median yellow or testaceous stripe bordered by black anteriorly, and marked with a number of transverse, triangular, black marks and lines more posteriorly ; the sides fulvous yellow, with black spots or more or less entirely blackened ; the ventral surface pale yellowish, rarely with a few dark spots towards the sides. *Vulva* (pl. viii., fig. 1) with well-developed, prominent, median lobe, whose hind margin is truncated or slightly sinuated ; the lateral lobes of hind margin generally depressed, appearing about as long as the median lobe when viewed from below, but converging towards one another dorsally to the median lobe when seen from behind, the median angles of the lateral lobes not produced backwards.

Legs pale yellowish, strongly banded and spotted with black, the distal segments often brownish ; tarsi without scopula ; basal spines on first tibia reaching only just beyond the base of the mesial spines.

Sternum pale yellowish, or faintly infuscated towards the sides.

Chelicerae with 2 inferior teeth.

Inferior *spinners* close together, the superior spinners with inconspicuous apical segment.

♂ ♂. Differs from ♂ of *albiventre* principally in having the dorsal eye-area wider behind and less quadrate. *Carapace* clothed with white hairs on median band. *Abdomen* as in ♀, but the posterior yellow area above the spinners furnished with some white

hairs. Tibia, metatarsus, and tarsus of first *leg* clothed with white hairs, the patella also with white hairs at base on each side. *Pedipalps* pale yellowish, the patella and tibia subequal, together longer than the tarsus; the latter with a longitudinal narrow distal strip of scopula above; the bulb not large.

Length ♀ ♀ $5\frac{1}{3}$ –8, ♂ $5\frac{1}{2}$ mm.

(b) 1 ♀ from Prince Albert (*W. F. P.*). Carapace uniformly darkened, without bands; abdomen also uniformly darkened above and on the upper part of the sides, with 2 rows of yellowish dots above; legs weakly banded on the femora; median lobe of vulva slightly wider than in the typical form.

(c) 1 ♀ from Ceres (*H. Hermann*). Median lobe of vulva wider than in the typical form; basal spines on first tibia longer, reaching to middle of the mesial spines; sternum black.

(d) 1 ♀ from Signal Hill, Capetown (*R. M. Lightfoot*). Vulva, tibial spines, and sternum as in ♀ from Ceres. Abdomen uniformly covered with testaceous yellow hairs intermingled with long black setæ above, the posterior part with a few small spots of white hairs.

2. ANOMALOMMA BISINUATA n. sp.

Specimens.—(a) 1 ♀ and 1 ♂ (No. 12747) from Dunbrody, on the Sundays River, Uitenhage Division (*Rev. J. A. O'Neil*).

♀ (*Type*). Carapace infuscated laterally, without marginal bands of white hairs, the median pale yellowish band narrow posteriorly and clothed with white hairs. Anterior lateral *eyes* slightly nearer to the anterior margin than to the eyes of the second row, which are rather large.

Abdomen pale fulvous yellow, speckled with black but without conspicuous dorsal pattern, clothed with yellow plumose hairs above; ventral surface pale yellowish, without spots. Vulva (pl. viii., fig. 2) a simple plate with bisinuate hind margin.

Sternum pale yellowish, faintly infuscated.

Legs pale ochraceous, banded, without scopulæ.

Chelicerae with 2 inferior teeth.

♂. Darker. Carapace with coppery hairs in median band. Abdomen black, the dorsal surface with large yellowish patch clothed with coppery hairs anteriorly and with a double series of yellowish spots as well as a number of coppery hairs posteriorly and a few white hairs above the spinners. Anterior legs partly infuscated; first leg clothed with white hairs on the tarsus and metatarsus (except at the base and apex of each segment), with a broad band of

white hairs near the middle of the tibia (but remote from the apex of the segment), and also with some white hairs on the base of the patella and femur. *Pedipalps* as in *schreineri* n. sp.

Length ♀ $6\frac{1}{2}$, ♂ $4\frac{1}{2}$ mm.

(b) 1 ♀ from Hermanuspietersfontein, Caledon Division (*R. M. Lightfoot*). Anterior lateral eyes midway between the anterior margin of carapace and the eyes of the second row.

GEN. PROEVIPPA n. g.

Very like the South African species of *Anomalomma*, but with the carapace still narrower and longer and the cephalic region distinctly elevated. Superior spinners much as in *Anomalomma albiventre*, &c., the distal segment being mostly inconspicuous. Legs robust, excepting the slender metatarsi and tarsi, and without any scopulæ; the claws with about 7 teeth. Labium scarcely or not reaching to the middle of the maxillæ. Chelicerae long. Abdomen clothed with plumose hairs (also present on the legs). Palpal organ of ♂ resembling that of *A. albiventre*.

PROEVIPPA LIGHTFOOTI n. sp.

Specimens.—(a) 3 ♂ ♂ (types; No. 9315) from the top of the Muizenberg Range, 1 ♂ from the flats at Bergvliet, Constantia Area, and 1 ♀ from the flats at Retreat, all these localities in the Cape Peninsula.

♂ ♂. *Carapace* reddish yellow, infuscated anteriorly on the head and towards the sides, thickly covered with white appressed hairs; the cephalic portion with black bristles in front and marked at posterior margin with a pair of black spots bearing black hairs. Dorsal eye-area slightly wider behind, its lateral length also a little less than the anterior width, and the posterior eyes only a little smaller than those of the second row, the distance between these latter eyes from $1\frac{1}{2}$ to nearly twice their own diameter; anterior median eyes slightly larger than the laterals and nearer to these than to one another, their lower margins slightly below the level of the upper edges of the lateral eyes.

Abdomen very pale yellowish, the upper surface sometimes fulvous yellow, provided anteriorly with a median, testaceous, fusiform stripe extending to the middle and bordered on each side by a black line or series of black spots; middle and posterior part of abdomen with several transverse bands and rings of black; sides marked with

a few black spots, their anterior part broadly blackened; ventral surface blackened, the postgenital region often only partially so; whole abdomen covered with white hairs, but the dorsal surface with 3-4 small patches of black hairs on each side.

Sternum black. *Chelicerae* with 2 inferior teeth.

Legs.—Three posterior pairs pale yellowish, clothed with white hairs, and banded and marked with black except on the tarsi; *first pair of legs* with the femur, patella, and tibia very robust, the femur pale yellowish above but blackened below and distally (except on the inner side), the blackened parts clothed with black hairs and the yellowish parts with white hairs; patella and tibia brownish yellow, thickly covered with black hairs, the hairs on the under side long, forming a thick mane, the patella with a patch of white hairs on inner side, the tibia with 4 long inner and 3 long outer inferior spines, the distal pair being inserted some little distance from the apex; metatarsus and tarsus of first leg slender, pale yellowish and clothed with white hairs, the metatarsus with a brown spot clothed with black hairs at base above, its under surface with 1 short (apical) and 2 long spines on each side. *Claws* of legs black.

Pedipalps brownish yellow; the tibia longish, longer than the patella; tarsus moderate, much shorter than the tibia and patella and provided with a distal strip of scopula along the middle above.

♀. Like the ♂, but with the front *legs* normal and resembling the others; the tibia spined as in the ♂. *Vulva* (pl. viii., fig. 3) a rounded plate, with truncated, deeply excavated and emarginated hind margin.

Length ♂ ♂ $4\frac{1}{2}$ -6, ♀ 5 mm.

(b) 1 ♂ from the Waterfall Mountains, Tulbagh Division (*R. M. Lightfoot*).

(c) 1 ♀ from Hermanuspietersfontein, Caledon Division (*R. M. Lightfoot*).

GEN. PTERARTORIA n. g.

Carapace mostly very like that of *Pardosa*, the sides of the head being generally vertical in the lower and sloping in the upper part in the ♀, but almost entirely vertical in the ♂; sometimes, however, with much more sloping sides, as in *Lycosa*. Dorsal eye-area sub-quadrate or narrowed in front; anterior row of eyes procurved and narrower than or as wide as the second row, the lateral eyes about midway between the eyes of the second row and the anterior margin of carapace. Apical segment of superior spinners small. Labium reaching at least to middle of maxillae. *Chelicerae* with 3 inferior

teeth, the distal tooth often smaller. Anterior tarsi scopulate at the sides; fourth metatarsus frequently equalling the tibia and patella in the ♂, but shorter than these segments in the ♀; anterior tibia generally with 3 inner and 2 outer, longish, inferior spines, in addition to a short apical pair; superior claws of hind legs with 6-8 teeth, the inferior claw not toothed. Body clothed with appressed plumose hairs, as well as with ordinary ciliated hairs.

Type: *P. subcrucifera* n. sp.

The two species described under the names *Lycosa lativittata* and *arbuscula* Purc. (Ann. S. A. Mus., v. 3, p. 38, 1903) also fall into this genus.

1. PTERARTORIA SUBCRUCIFERA n. sp.

Specimens.—(a) 12 ♀ ♀ and 10 ♂ ♂ (types; No. 9264, &c.) from the Cape Peninsula (Lions Rump, slopes of Devils Peak and Table Mountain, Camps Bay and Sea Point).

♀ ♀. *Carapace* longer than the fourth metatarsus and subequal to the tibia and metatarsus of first leg, covered with pallid hairs; colour dark brown or nearly black, the submarginal, yellow lateral bands imperfect; cephalic portion of median band amplified, rotund and generally provided with a pair of dark marks, the thoracic portion nearly parallel-sided or more or less widened or even subrotund in the anterior part. Dorsal eye-area as long as wide in front, subquadrate. Eyes of the second row relatively small and much more than their own diameter apart, the second row wider than the first by nearly $\frac{1}{2}$ an eye's diameter on each side. Anterior row of eyes considerably procurved, the eyes small and equal.

Abdomen.—Dorsal surface with a yellow band (or series of spots) on each side, the bands converging and often uniting behind and in front, enclosing a large, mostly dark brown area, which is provided in front with a narrow median yellow line and is frequently transversely dilated in places, particularly in the middle, somewhat in the form of a cross; * sides of abdomen black, mottled with yellow; under surface more or less pale yellowish, often with a dark median stripe. *Vulva* (pl. viii., fig. 4) somewhat transverse, the greater part occupied by a large 4-sided fovea, which is open along the straight posterior margin; the raised border enclosing the fovea emarginate in the middle and furnished with a dark spot on each side near hind end.

Legs pale yellowish, strongly banded with black, especially on the

* In some specimens the abdomen is provided with a couple of large white median patches posteriorly, placed one behind the other.

femora; tarsi and metatarsi of 2 anterior pairs scopulate at the sides.

Sternum blackened. *Chelicerae* with the distal inferior tooth generally smaller.

♂ ♂. *Abdomen* very differently marked, the dorsal surface black towards the sides and provided with a median, yellow or brownish red band which is very broad in the anterior half but much narrower (rarely absent) in the posterior half of abdomen, the anterior portion of the band furnished with a median stripe of white hairs, the stripe often bordered on each side by a black line; under surface often blackened. *Carapace* with the sides of the head steep. Fourth *metatarsus* as long as the tibia and patella.

Length ♂ ♂ $4\frac{3}{4}$ – $6\frac{1}{2}$, ♀ ♀ 7– $8\frac{1}{2}$ mm.

(b) 1 ♂ and 1 ♀ (No. 3285) from Ceres (*W. F. P.*).

(c) 1 ♂ (No. 12369) from the banks of the Breede River at Darling Bridge, Worcester Division (*H. Hermann*).

(d) 8 ♂ ♂ and 3 ♀ ♀ (No. 7828) from Brandvlei, Worcester Division (*I. Meiring, W. F. P.*).

2. *PTERARTORIA CALDARIA* n. sp.

Type.—1 ♀ (No. 12649) from the Hot Baths near Montagu (November, 1902, *W. F. P.*).

♀. *Carapace* subequal to the first tibia and metatarsus but a little longer than the fourth metatarsus; colour brown, the sub-marginal stripes formed of a row of yellow spots on each side; the median yellow band broad, the cephalic portion broadly oval, constricted behind, the thoracic portion widened and oval anteriorly. Anterior row of eyes considerably procurved, a little narrower than the second row, the eyes subequal; eyes of the second row moderately large, scarcely more than their own diameter apart; dorsal eye-area a little shorter than wide in front, subquadrate.

Abdomen reddish brown above, with yellowish plumose hairs; the narrow median yellow stripe on anterior half dilated transversely in front; posterior part of abdomen with a series of transverse black lines down middle; ventral surface pale yellowish.

Vulva (pl. viii., fig. 5) related to that of the previous form but more complicated, the median emargination of the border deeper and preceded by an additional transverse edge; a transverse black line present on each side posteriorly.

Sternum black, with large yellow patch.

Chelicerae yellow at base, black distally, the distal inferior tooth smaller.

Legs pale yellow, spotted and banded with black, especially on the femora; anterior tarsi and metatarsi scopulate at the sides.

Total length 7 mm.

3. *PTERARTORIA SAGÆ* n. sp.

Type.—1 ♀ (No. 4170) from the Hex River Valley, Worcester Division (*F. Treleaven*).

Closely allied to *caldaria* n. sp.

♀. *Carapace* subequal to the fourth metatarsus and to the first tibia and metatarsus in length; colour dark brown, the submarginal yellow stripes interrupted, the cephalic portion of the median band enlarged and provided with a pair of dark stripes, the thoracic portion of this band a little narrower anteriorly, much narrower posteriorly. Anterior row of eyes strongly procurved, the eyes subequal; second row wider than the anterior row by about $\frac{1}{2}$ an eye's diameter on each side, the eyes of moderate size, their distance apart considerably exceeding their diameter; dorsal eye-area almost forming a square, being only slightly wider behind than in front.

Skin of *abdomen* reddish brown above and at the sides (the hair covering mostly rubbed off), with some black spots; dorsal surface with a narrow, median, black-bordered, yellow stripe in anterior half and with a yellow spot on each side at anterior end; under side pale yellowish. *Vulva* (pl. viii., fig. 6) longer than wide, consisting of a horseshoe-shaped marginal portion enclosing a depression in which lie a pair of deeper cavities; on each side near posterior end of the plate is a black spot.

Sternum yellowish, infuscated. *Chelicerae* yellowish brown, with oblique infuscate band in front, the 3 inferior teeth equal.

Legs yellowish, banded; scopulae feeble but present on the sides in the two anterior pairs of legs.

Total length 7 mm.

4. *PTERARTORIA FLAVOLIMBATA* n. sp.

Specimens.—1 ♀ (No. 12203) from Hout Bay (November, 1901, *W. F. P.*) and 1 ♂ (No. 9140) from the Cape Flats near Princess Vlei (May, 1901, *W. F. P.*), both localities in the Cape Peninsula.

♀ (*Type*). *Carapace* a little longer than the fourth metatarsus but subequal to the first tibia and metatarsus; lateral margins broadly yellow, the median, reddish yellow band broad, its cephalic portion a little dilated on each side, its thoracic portion only slightly dilated anteriorly, broad throughout. Anterior row of eyes moder-

ately procurved, narrower than the second row, the median eyes slightly larger; the eyes of the second row rather large, scarcely more than an eye's diameter apart; dorsal eye-area subquadrate, its width in front only slightly exceeding the length of the sides.

Abdomen reddish brown or fulvous, mingled with black above and on the sides, with a narrow, median yellow stripe in anterior half and a large white median band with angular lateral edges in posterior half; ventral surface pale yellowish. *Vulva* (pl. viii., fig. 7) broadly transverse, consisting of a median bar, which is dilated posteriorly and terminates free anteriorly, and of a pair of curved lateral elevations, each containing a black spot; in the angle between the median bar and the lateral pieces is a smaller convexity.

Sternum yellow in the middle, black laterally.

Chelicerae with basal yellow patch; the proximal inferior tooth strongest.

Three anterior pairs of *legs* pale yellowish, strongly banded and marked with black, except on the tarsi; black bands on fourth leg mainly present on the femur, the more distal segments faintly banded with reddish yellow; coxæ also spotted with black; tarsi and anterior metatarsi scopulate laterally.

♂. Dorsal eye-area nearly quadrate.

Abdomen brown laterally, with a broad yellow median band above becoming narrower posteriorly and reaching hind end, the anterior part of this band with a narrow median strip of white hairs bordered by dark brown laterally.

Legs long, pale yellowish, not banded, the anterior femora infusate at the base; fourth metatarsus equal to the tibia and patella.

Pedipalps pale yellowish, the femur blackened below, the patella and tibia subequal and together a little shorter than the tarsus; the bulb (pl. viii., fig. 8) very large, provided with a strong blunt spiniform process in the middle below.

Total length ♀ 8, ♂ $4\frac{1}{2}$ mm.

5. PTERARTORIA POLYSTICTA n. sp.

Type.—1 ♀ (No. 7898) from Marcus Bay, Bredasdorp Division (H. A. Fry).

♀. *Carapace* a little longer than the fourth metatarsus and than the first tibia and metatarsus; colour dark brown, with radiating black lines, the submarginal stripe broken up into 3-4 yellow spots; the median yellow band broad, subrotund and provided with 2

dark spots on the cephalic portion, the thoracic portion of the band dilated anteriorly, narrower posteriorly. Anterior row of eyes considerably procurved, the median eyes slightly larger; second row considerably wider than the anterior row (by nearly $\frac{1}{2}$ an eye's diameter on each side), the eyes rather large and about a diameter apart; dorsal eye-area subquadrate, the anterior width equalling the length of the sides.

Abdomen infuscated laterally above and provided with a large, median, whitish area, which contains a narrow, median, black-margined yellow stripe on anterior half of abdomen and several median blackish markings in middle and posterior part of abdomen (the hairs on upper surface mostly rubbed off); under surface whitish. *Vulva* (pl. viii., fig. 9) a semicircular plate containing a triangular fovea, the bottom of which is convexly elevated along the middle.

Sternum and *legs* coloured as in the preceding species.

Chelicere reddish yellow, with oblique black band in front, the 3 inferior teeth subequal.

Total length $7\frac{1}{2}$ mm.

6. PTERARTORIA FISSIVITTATA n. sp.

Type.—1 ♀ (No. 5798) found at Grahamstown in November, 1899, by the Rev. J. A. O'Neil.

♀. *Carapace* with the median band rather narrow, the cephalic portion of the band only slightly enlarged and provided with a fine median dark line. Anterior row of eyes slightly procurved, the median eyes small, only slightly larger than the laterals; posterior median eyes about a diameter apart; dorsal eye-area about as wide in front as long at the sides.

Abdomen black, brown and gray at the sides, with strong, median, percurrent yellow band above, which is wider in front and contains a narrow, median, brownish yellow area bordered by 2 narrow black lines above the heart; under side pale yellowish, without stripes; the sides in the lower part pale yellowish, mottled with black. *Vulva* (pl. viii., fig. 10) with a pair of curved grooves posteriorly enclosing a short keel, which is dilated behind; the sides of the vulva with a reddish black, comma-shaped mark, the posterior end of the comma being tubercularly raised.

Legs.—Tibia I with only 2 inner and 1-2 outer spines below besides the apical pair; metatarsus I with long basal spines, scopulate at the sides for $\frac{3}{4}$ or more of its length.

Chelicerae with 3 inferior teeth, the distal tooth smallest.

Coxae and *sternum* pale yellowish, the latter partially infuscated.

Total length $8\frac{1}{2}$ mm.

GEN. LYCOSA Latr.

1. LYCOSA PATRICKI n. sp.

Specimens.—1 ♀ (type; No. 12521) and 1 ♂ (No. 12004), apparently belonging to the same species, found on the Commonage at Umtali, Mashonaland, by Mr. D. L. Patrick, in November, 1901.

Related to *capensis* Sim. (= *hectoria* Poc.), *schreineri* Pure., *darlingi* Poc. (= *subvittata* Poc.), &c.

♀. *Carapace* slightly shorter than the first tibia and metatarsus and as long as the fourth metatarsus and $\frac{1}{4}$ – $\frac{1}{3}$ of the tarsus; cephalic portion of median band broad, strongly constricted behind and furnished with a pair of longitudinal infusate lines, the thoracic portion of the band dilated anteriorly but narrower than the cephalic portion. Anterior row of eyes moderately procurved, the median eyes distinctly larger; second row wider than the anterior row by about $\frac{1}{4}$ – $\frac{1}{3}$ of an eye's diameter on each side, the eyes very large, considerably less than a diameter apart, their distance from the anterior margin of the carapace also distinctly less than a diameter.

Abdomen pale fulvous yellow above, with a slightly darker median area and another on each side along the upper lateral borders, the median series of black transverse bars in posterior part almost obliterated; ventral surface pale yellowish. *Vulva* (pl. viii., fig. 11) much longer than wide, consisting of a \blacktriangle -shaped border enclosing a long subtriangular fovea, in which lies a long median bar whose posterior end is transversely dilated; posterior ends of the \blacktriangle dark reddish brown.

Chelicerae with some yellow hairs in front, the 3 inferior teeth subequal. *Sternum* reddish yellow.

Legs reddish yellow, the femora weakly banded, the posterior tibiae not banded.

♂. Dark areas on *abdomen* much blacker, the ventral surface posterior to the genital segment intensely black and sharply contrasting with the pale yellow of the sides and of the genital segment. *Sternum* with a long, narrow, U-shaped, black mark. Apex of third and base and apex of fourth *tibia* darkened.

Total length ♀ $18\frac{1}{2}$, ♂ $15\frac{1}{2}$ mm.

2. *LYCOSA GRACILITARSIS* n. sp.

Type.—1 ad. ♀ (No. 5343) from a Mission Station 20 miles east of Pietersburg, Transvaal (*Rev. J. W. Daneel*, 1898).

♀. Closely resembling *L. schreineri* Purc. (*Ann. S. A. Mus.*, v. 3, p. 35) from Hanover, Cape Colony, but differing principally in having the *eyes* of the second row larger and only $\frac{2}{3}$ of a diameter apart, and those of the first row also larger, especially the medians, which are very distinctly larger than the laterals and distant only about half their own diameter from the posterior median eyes (in *schreineri* distant at least their own diameter). Anterior row of eyes narrower than the second row by only $\frac{1}{4}$ or less of a posterior median eye's diameter on each side.

Carapace as long as the tibia and metatarsus of first leg and slightly longer than the metatarsus and $\frac{1}{2}$ the tarsus of fourth leg.

Chelicerae with white hairs in front and some yellowish ones. *Coxae* and *sternum* nearly black.

Abdomen similarly marked as in *schreineri*, but the 3 longitudinal dark bands paler; the greater part of the sides as well as the under surface of the abdomen black. *Vulva* with the foveae slightly longer than in *schreineri*.

Legs with the tarsi very slender; only the fourth tibia distinctly banded.

Total length 19 mm.

3. *LYCOSA AURATA* n. sp.

Type.—1 ♀ (No. 4196) from Barberton, Transvaal, collected by Mr. J. P. Cregoe in December, 1897.

♀. *Carapace* slightly longer than the tibia and metatarsus of first leg and subequal to the metatarsus and $\frac{1}{2}$ the tarsus of fourth leg; colour a rich brown on the broad lateral bands; the submarginal yellow bands narrow, with both edges lacinate, the outer edge bordered with black spots; surface covered with golden yellow hairs on the light bands, but on the dark bands black hairs predominate; median reddish yellow band almost parallel-sided, being only slightly wider in the middle than towards the ends, the cephalic portion flanked on each side by a parallel, narrow, yellow line which is suddenly bent at right angles at posterior end to join the median band. Anterior row of eyes lightly procurved, narrower than the second row by $\frac{1}{4}-\frac{1}{3}$ of a posterior median eye's diameter on each side, the anterior median eyes large, much larger

than the laterals and only about $\frac{1}{2}$ their own diameter from the posterior medians; posterior median eyes about $\frac{1}{2}$ a diameter apart.

Abdomen covered with golden and yellow hairs intermixed, the anterior half with a pair of golden yellow bands united in front and diverging posteriorly, the cuneate area enclosed between them with black at the sides; posterior half of abdomen with a median series of faint, transversely triangular markings; sides of abdomen pale yellowish below, with fine black dots; under side black. *Vulva* (pl. viii., fig. 12) longer than broad, subtriangular in outline, the median bar placed far behind, short, with a small fovea on each side; posterior outer corners of plate with a dark mark bearing a convexity.

Chelicerae with yellow hairs in front; the apex with 3 subequal inferior teeth.

Legs pale ochraceous, the femora with some faint infusate marks, the fourth tibia only faintly darkened at apex below; anterior tibiae and posterior metatarsi scopulate distally; basal spines on anterior metatarsus long, reaching base of mesial spines; coxae strongly infuscated.

Sternum broadly blackened along the middle, ochraceous laterally.

Total length $11\frac{1}{2}$ mm.

4. *LYCOSA BIMACULATA* n. sp.

Specimens.—(a) *Type*: 1 ad. ♀ (No. 9852) from East London, Cape Colony (*J. Wood*, 1901).

♀ *Carapace* clothed with whitish and pale yellowish hairs; its length slightly exceeding that of the tibia and metatarsus of first leg and subequal to that of the metatarsus and $\frac{1}{3}$ of the tarsus of fourth leg; the median ochraceous band strongly constricted in the middle and expanded before and behind the constriction to form a pair of equally large rotund areas of which the anterior one is bimaculate, the band narrowed again posteriorly and anteriorly, the narrow anterior part (between the eyes) separated from the anterior rotundate area by a smaller constriction; lateral margins yellow; the two brown bands black at posterior end. Anterior row of eyes slightly narrower than the second row and slightly procurved, the median eyes very distinctly larger than the laterals and distant about their own diameter from the posterior medians; posterior median eyes large, their distance apart scarcely exceeding $\frac{1}{2}$ their diameter.

Chelicerae with pallid hairs in front and 3 inferior teeth at apex, the distal tooth being smallest.

Abdomen (in spirits) blackened at the sides above, with fine whitish dots, the anterior half with a fusiform, brownish, median mark which is bordered laterally with some black and flanked on each side by a broad pale fulvous band uniting anteriorly, the posterior half of the dorsal surface with a double series of somewhat confluent, obliquely transverse, large, pale fulvous marks (some containing a black dot) separated by a median series of black, transverse, angular marks or bars; anterior surface with a pair of large intensely black marks; the sides whitish below, with some black spots; under surface black, with 2 white spots posteriorly, the lung-opercula pallid. Vulva (pl. viii., fig. 13) somewhat like that of *promontorii* Poc., but much longer than wide, with a large deep excavation behind containing a \perp -shaped elevation, of which the median bar is broad at the anterior end but narrow behind and the cross bar thick with rounded ends; the outline of the large excavation emarginate in front in the median line and also near the middle of each side.

Legs ochraceous, the femora with dark bands on the sides, the posterior tibiae darkened at the apex below; posterior metatarsi and anterior tibiae scopulate.

Sternum broadly blackened along the middle, ochraceous at the sides.

Total length $13\frac{1}{2}$ mm.

(b) 1 ♀ (No. 12698) from the Kentani District, Transkei, collected by Mr. H. P. Abernethy. All the tibiae black at apex.

(c) 1 ♀ and 1 ♂ (No. 5686) from Doornnek, in the Zuurbergen, Alexandria Division, collected by Mr. I. L. Drège in October, 1899. Under side of abdomen (except on the lung-opercula) almost wholly blackened and without the 2 white spots, the pale submarginal bands of carapace and the bands on the legs indistinct. In the ♀ the colouration is altogether much darker, the abdomen is almost uniformly mouse-brown above, and the carapace is slightly shorter than the tibia and metatarsus of first leg. In the ♂ the carapace is as long as the tibia and $\frac{1}{2}$ the metatarsus of first leg but considerably shorter than the fourth metatarsus.

Total length of ♀ $12\frac{1}{2}$, ♂ 10 mm.

Apparently closely allied to *algoensis* Poc. (= *bessiana* Poc.).

5. *LYCOSA UMTALICA* n. sp.

Types.—2 ♀ ♀ (No. 12005) collected by Mr. D. L. Patrick in November, 1901, on the Commonage at Umtali, Mashonaland.

Closely allied to the foregoing, especially to var. (c).

♀ ♀. *Carapace* as long as the tibia and metatarsus of first leg and as the metatarsus and $\frac{1}{3}$ of the tarsus of fourth leg; thoracic portion of median band with the dilated portion smaller than in var. (c) of *bimaculata* n. sp., and in one specimen narrower than the cephalic portion, in which the black dots are obsolete; lateral edges blackened; hairs, even those on the paler bands, mostly black. Anterior row of eyes slightly narrower than the second row, the lower margins in a straight or only very slightly procurved line, the median eyes considerably larger than the laterals and less than their own diameter from the posterior median eyes; the latter a little more than $\frac{1}{2}$ their own diameter apart.

Chelicerae with yellowish hairs in front, the 3 teeth on inferior margin equal or the proximal one smaller.

Abdomen with the pattern on the dorsal surface similar to that in *bimaculata* n. sp., except that the fulvous marks are much smaller, each pair occupying only about $\frac{1}{2}$ of the width of the abdomen; sides thickly spotted with black; under surface very pale, with or without a pair of dark longitudinal lines and spots converging posteriorly from each side of the vulva. Vulva (pl. viii., fig. 14) very like that of *promontorii* Poc., about as long as broad, the median bar strongly dilated and emarginate in the middle anteriorly, narrow posteriorly, the transverse bar only a little wider than the anterior dilation and rounded at each end; the somewhat horseshoe-shaped border of the plate with a large dark oval mark near each end posteriorly.

Legs coloured as in *bimaculata* n. sp., but the posterior tibiae not darkened at apex below; tibiae of anterior legs without scopula; metatarsus of fourth leg with the scopula practically absent.

Sternum and *coxae* pale yellowish.

Total length $12\frac{1}{2}$ mm.

6. LYCOSA O'NEILI n. sp.

Specimens.—(a) 2 ♀ ♀ (No. 8382) and 1 ♂ (No. 5254) found at Dunbrody, on the Sundays River, Uitenhage Division, by the Rev. J. A. O'Neil.

Closely allied to *L. promontorii* Poc., having the head low and broad in front, the width of the head across the posterior row of eyes being more than twice the width of the second row of eyes.

♀ ♀. *Carapace* only a little longer than the fourth metatarsus but a little shorter than the first tibia and metatarsus together;

colour pale yellowish or reddish yellow, the surface for the most part clothed with black hairs; the darker lateral bands very lightly infuscated; the dark marginal and light submarginal stripes well developed; cephalic portion of median band broad, parallel-sided and containing 2 longitudinal, infusate, parallel stripes, the posterior end strongly and suddenly constricted, the thoracic portion of the band narrow, almost parallel-sided, constricted posteriorly just behind the median stria. Eyes of the second row about $\frac{2}{3}$ of a diameter apart or less; the anterior row of eyes as wide as the second row, with the lower margins in a straight line, the median eyes much larger than the laterals.

Abdomen pale yellowish; the dorsal surface lightly or deeply infuscated, with a paler, yellowish median band, which is broad anteriorly (enclosing here a spindle-shaped black-bordered area outlining the heart) but narrow and often divided by transverse lines into sections, each bearing 2 black dots, posteriorly; anterior surface not more deeply blackened; sides of abdomen with some infusate marks; under surface without bands. Vulva (pl. viii., fig. 15) with the median bar stout, widening anteriorly; the transverse bar with slightly convex posterior edge, about as long as the median bar.

Legs long, reddish yellow, some with faint infusate marks, the distal segments long and slender and more reddish; anterior tibiae scopulate distally below; metatarsus I with the basal spines not reaching to the mesial spines.

Chelicerae with the 3 inferior teeth subequal or the distal one smaller. *Sternum* and *coxae* pale yellowish.

Total length $9\frac{1}{2}$ –12 mm.

♂. Carapace shorter than the metatarsus of fourth leg and as long as the metatarsus and $\frac{1}{2}$ the tarsus of first leg.

This species has much longer legs than the other 3 species of the group (*promontorii* and *spenceri* Poc., *rimicola* Purc.).

(b) 1 ♀ (No. 12651) from the Hot Baths near Montagu (W. F. P.).

(c) 1 ♀ (No. 7830) from Brandvlei, Worcester Division (I. Meiring). Carapace very faintly infuscated, almost unicolorous, the lateral yellow stripes represented by a few small spots and the median stripe very narrow and without cephalic branches; carapace as long as the tibia and metatarsus of first leg and a little less than the metatarsus and half the tarsus of fourth leg.

(d) 1 ♀ (No. 9747) from Port St. Johns, Pondoland (Guy Shortridge). Legs shorter even than in the preceding specimen.

7. *LYCOSA NIVOSA* n. sp.

Specimens.—(a) Types: 1 ♀ and 3 ♂ ♂ (Nos. 5854, 5837) from Retreat Flats, Cape Peninsula (*F. Treleaven*).

♂ ♀. *Carapace* as long as the metatarsus and $\frac{3}{4}$ of the tarsus of fourth leg and as the tibia, metatarsus, and $\frac{1}{4}$ — $\frac{1}{2}$ of the tarsus of first leg in both sexes; margins finely blackened; surface *without* well-marked longitudinal bands but covered with yellowish and snow-white hairs, the latter forming conspicuous patches or spots (visible when dry); head broad and obtuse in front as in *promontorii* Poc., &c., its width across the posterior row of eyes exceeding twice the width of the second row. Eyes of the second row rather small, less than their own diameter apart; the anterior row of eyes as wide as the second row, the lower margin in a nearly straight or slightly procurved line, the median eyes a little larger than the laterals.

Abdomen (in spirits) pale yellowish below or at least paler, the sides and dorsal surface black, the latter with a median yellowish mark on anterior half flanked by yellow spots on each side, sometimes almost the whole dorsal surface broadly yellowish; sides and dorsal surface covered with golden-olivaceous and white hairs, the latter forming a number of snow-white spots and patches.

Legs pale ochraceous, strongly banded with black on nearly all the segments and provided with rings of snow-white hairs; tibia I with only 2 inner inferior spines (the basal spine being absent) and 1–2 outer inferior spines; spines on metatarsus I small.

Sternum reddish yellow, with black margins.

Chelicere with the 2 distal inferior teeth subequal and larger than the minute proximal one, the middle tooth also placed closer to the proximal than to the distal tooth.

Vulva (pl. viii., fig. 16) of ♀ forming a rounded plate containing 2 large, shallow, oval depressions, separated by a median bar, the depressions converging anteriorly and containing each a deep fovea posteriorly; the foveæ with well-marked curved anterior rim and flanked on the outer side by a small round dark dot.

Total length ♀ $7\frac{1}{2}$, ♂ $5\frac{3}{4}$ – $6\frac{1}{4}$ mm.

(b) 3 ♀ ♀ and 3 ♂ ♂ (Nos. 3953, 3960) from the river-bed at Laingsburg, Prince Albert Division (September, 1896, *W. F. P.*). Abdomen in ♀ ♀ pale olivaceous yellow to nearly black, in the ♂ ♂ dark olive with broad, yellow dorsal area.

(c) 3 ♀ ♀ and 5 young (No. 3930) from Botterkraal, between Prince Albert and the railway station (found near water in September, 1896, by myself).

(d) 1 ♀ (No. 9432) from Hanover, Cape Colony (*S. C. Cronwright Schreiner*, 1901). Abdomen black above, with narrow median yellow stripe anteriorly.

(e) 14 ♀ ♀, 4 ♂ ♂, and 1 young (No. 8383) from Dunbrody, on the Sundays River, Uitenhage Division (1898, *Rev. J. A. O'Neil*). Dark-coloured specimens.

8. *LYCOSA LIGHTFOOTI* n. sp.

Specimens.—(a) 8 ♀ ♀ and 3 ♂ ♂ (types; No. 12170, &c.) from the Cape Peninsula (Retreat, Bergvliet and Maitland Flats, Kalk Bay and Table Mountains).

♀ ♂. Closely resembling *L. nivosa* n. sp., but differing in the form of the vulva and the number of the spines on the legs.

Abdomen black, the under surface yellowish (often black in ♂), the dorsal surface generally with paler, median anterior stripe and 3 yellow spots on each side of it, often followed by some transverse yellow bars posteriorly. Vulva with the 2 shallow depressions not converging but rather slightly diverging anteriorly.

Tibia of first leg generally with 3 inner inferior spines (the small basal spine being rarely absent).

Sternum dark brown or black.

Total length ♀ ♀ 5–7, ♂ ♂ 5 mm.

(b) 2 ♀ ♀ (No. 12384–5) from the Waterfall Mountains, Tulbagh Division (*R. M. Lightfoot*).

9. *LYCOSA CRETATA* n. sp.

Specimens.—(a) 2 ♂ ♂ (December) and 8 ♀ ♀ (November, December) (No. 6065, &c.), several with cocoons, from the Cape Peninsula.

Allied to *L. brunneipes* Purc.

♀ ♀. *Carapace* about as long as the metatarsus of fourth leg or the tibia together with from over $\frac{1}{2}$ to nearly $\frac{2}{3}$ of the metatarsus of first leg; dark lateral bands very broad; the marginal dark stripe often broader than the submarginal yellowish stripe, which is continued to anterior end of head; head with a second, short yellow stripe on each side just below the posterior eyes; thoracic portion of median yellow band narrow, almost parallel-sided throughout or dilated at hind end, the cephalic portion very broad, containing a black median stripe, the ()-shaped black stripes in the band only slightly curved, very well marked, extending up to the ocular area, their anterior and posterior ends generally united with the dark

lateral bands. Eyes of the second row their own diameter or slightly less apart; the anterior row slightly procurved, as wide as the second row, the median eyes scarcely larger than the laterals.

Abdomen in lighter coloured specimens yellowish, the upper surface with a broad, median yellow band shaped like that in *brunneipes* and broadly bordered with black on each side, the area above the heart covered with snow-white hairs and bordered with black; lateral parts of dorsal surface and the sides brownish yellow, with black dots; under surface yellow with obscure median patch or black band. In darker coloured specimens the whole abdomen may be blackish or brown, excepting a broad yellow band on each side of the median stripe on ventral surface and the yellow, white-haired, dorsal stripe above the heart, the large median band being paler brownish or even absent. Vulva (pl. viii., fig. 17) like that of *brunneipes*; the median lobe small, not larger than the lateral lobes.

Legs as in *brunneipes* in the lighter specimens but strongly infuscated and marked with yellow in the dark specimens.

Sternum pale yellowish, or strongly infuscated and with a fine, median yellow line. *Coxæ* pale yellowish, sometimes faintly infuscated in places.

Chelicerae with 3 subequal inferior teeth.

♂ ♂. Smaller; carapace shorter than the fourth metatarsus; tarsus of pedipalps small, *shorter than the long, slender, curved tibia*.

Total length ♀ ♀ 6–8, ♂ ♂ $6\frac{1}{2}$ mm.

(b) 1 ♀ (No. 12650) from the Hot Baths near Montagu (W. F. P.).

10. LYCOSA DREGEI n. sp.

Specimens.—(a) 4 ♀ ♀ and 2 young (No. 5374) and 1 ♀ with cocoon (No. 8450), all collected at Van Stadens River, Uitenhage Division, by Mr. I. L. Drège in January of 1899 and 1900.

Allied to *brunneipes* Purc. in colouration and structure.

♀ ♀. *Carapace* a little shorter or longer than the fourth metatarsus and as long as the tibia and from over $\frac{1}{2}$ to $\frac{3}{4}$ of the metatarsus of first leg; colour reddish yellow, with broad, darkly infuscated bands and strongly blackened lateral margins; the ()-shaped (often W-shaped) marks in the cephalic portion of the median band united with the dark lateral bands anteriorly and sometimes also with one another in the median line to form a W; thoracic portion of median band oval anteriorly, strongly constricted near hind end of stria;

pale submarginal stripe narrow, developed only in the posterior part of the thorax, obsolete on the head. Anterior row of eyes about as wide as the second row, the anterior margin in a slightly procurved line, the median eyes a little larger than the laterals.

Abdomen (in spirits) black above (in one specimen merely pale fulvous yellow and darkened only anteriorly), the posterior half without any band, the anterior half with a narrow, pale yellowish median band and with or without a short branch or separate parallel stripe on each side of the median one; sides wholly darkened, or pale yellowish with black spots or wholly pale yellowish; under side pale yellowish, sometimes with faint, median dark stripe. Vulva (pl. viii., fig. 18) much as in *brunneipes* but with the posterior emarginations more conspicuous and the dark lateral spots slightly further from the posterior margin and less black; the median lobe large, much wider than the lateral lobes.

Legs more or less banded, with infusate markings, or these markings obsolete; otherwise as in *brunneipes*.

Sternum lightly or darkly infuscated, with pale yellowish median line, at least anteriorly.

Chelicerae with the distal inferior tooth smaller than or subequal to the other two.

Total length $10\frac{1}{2}$ mm.

(b) 1 ♀ collected by Dr. H. Brauns at Willowmore, Cape Colony, in 1901.

(c) 1 ♀ (No. 7860) from East London (*J. Wood*).

(d) 1 ♀ and 1 ♂ (No. 8387) from Dunbrody, Uitenhage Division (1898, *Rev. J. A. O'Neil*). Legs of ♂ longer than in the ♀, the carapace as long as the tibia and $\frac{1}{4}$ of the metatarsus or the metatarsus and $\frac{1}{3}$ of the tarsus of first leg (fourth legs absent); pedipalps with the tibia curved and a little longer than the tarsus.

11. LYCOSA TENUISSIMA n. sp.

Type.—1 ♀ (No. 5688) from Doornnek, in the Zuurbergen, Alexandria Division (*I. L. Drège*, October, 1899).

Allied to *brunneipes* Purc.

♀. *Carapace* considerably shorter than the metatarsus and only a little longer than the tibia of fourth leg and about as long as the metatarsus and $\frac{1}{2}$ the tarsus of first leg; colour and markings much as in *dregei* n. sp., the ()-shaped markings on the head united with the dark lateral bands anteriorly, the thoracic portion of the median band narrower than in *dregei*. Lower margin of anterior row of eyes

almost straight, scarcely procurved, the median eyes considerably larger than the laterals.

Abdomen coloured as in the darkest specimens of *dregei*, but the under side without a distinct median stripe. Vulva much as in *cretata* n. sp., the median lobe of hind margin narrower than the well-developed, rounded lateral lobes; the 2 dark spots large and oval.

Cheliceræ with 3 subequal inferior teeth.

Legs remarkably long and slender, especially the reddish distal segments; femora banded; basal spines on metatarsus I not reaching to the mesial spines.

Sternum and *coxae* pale ochraceous, the former darker round the edges.

Total length $15\frac{1}{2}$ mm.

This species is larger and has longer legs than any of the others of the group of forms related to *brunneipes* Purc.

12. LYCOSA BIAMPLIATA n. sp.

Specimens.—(a) 12 ♀ ♀ and 4 ♂ ♂ (types; Nos. 9312, 12305, &c.) found on the top of the mountains at Kalk Bay and Muizenberg, in the Cape Peninsula, by Mr. R. M. Lightfoot and myself. Also a number of other specimens from the tops of Simonstown and Table Mountains, and a few from Plumstead, St. James, and Hout Bay. The home of this species is moist sandy places on the summits of mountains.

Related to *brunneipes* Purc.

♀ ♀. *Carapace* as long as the metatarsus and $\frac{1}{6}$ – $\frac{1}{4}$ of the tarsus or as the tibia and $\frac{1}{3}$ – $\frac{2}{5}$ of the metatarsus of fourth leg, subequalling the tibia and metatarsus of first leg, but much longer than the metatarsus and tarsus; the surface more or less strongly blackened, the yellow submarginal stripe absent or represented only posteriorly; pale median band more or less yellow or reddish yellow (rarely, in very dark specimens, almost obliterated), the cephalic portion broad and rotund, strongly constricted posteriorly, often containing a pair of dark marks and followed by the similar, equally broad and rotund or narrower and oval middle thoracic portion, both these ampliations covered with white hairs; posterior part of median band nearly naked. Eyes of the second row more than their own diameter apart; the anterior row rather strongly procurved and a little narrower than the second row, the eyes subequal, small.

Abdomen black above, with a series of transverse black markings

down the middle, the second (situated in the middle of the abdomen) and following marks distinctly **W**-shaped and furnished with a round white spot on each side; the spaces between the black markings as well as the large area in front of the anterior mark sometimes dark but generally more or less yellowish and covered with white hairs, the anterior area often bordered by a pair of yellow lines which slightly diverge posteriorly; sides of abdomen mottled with black and white; under side pale yellowish, without stripes. Vulva (pl. viii., fig. 19) of the same type as in *brunneipes*; the median lobe equalling or slightly broader than the lateral lobes.

Legs yellowish, not browned distally, all the segments from the femur to the metatarsus strongly banded with black; scopula of anterior tarsi broadly divided by a double row of minute spines; basal spines of anterior metatarsi long.

Sternum black, sometimes with a yellow line in the middle.

Chelicerae pale yellowish at base, darkened distally; the distal inferior tooth nearly always smaller than the other two.

♂ ♂. Differ markedly in the colouration of the abdomen and legs from the ♀ ♀.

Abdomen with the anterior pair of yellow lines well marked, diverging, often very strongly, posteriorly, and followed by a broad, median yellow band, the latter bordered by black lines and generally also by a row of round white spots on each side; the **W**-shaped black marks obliterated along the median line.

Legs blackened proximally but pale yellowish distally, only faintly or scarcely at all banded; the patella, tibia, and metatarsus of the first pair covered with silvery white hairs.

Pedipalps long, the tibia curved, *slightly longer than the small tarsus*.

Length ♀ ♀ 6-9½, ♂ ♂ 5½-6½ mm.

The pattern on the carapace and abdomen is remarkably variable. In the specimens from Hout Bay and Table Mountain the lateral part of the dorsal surface is frequently brown or greyish. Sometimes the abdomen of the adult ♂ is coloured like that of a typical ♀, and *vice versa*, and occasionally the femora of the ♂ are strongly banded.

(b) 1 ♀ (No. 12377) from Ceres (*H. Hermann*).

(c) 1 ♂ (No. 12696) from the banks of the Breede River at Darling Bridge, Worcester Division (*H. Hermann*).

GEN. TRABÆA E. Sim.

1. TRABÆA LINEATA n. sp.

Specimens.—(a) An adult and a subadult ♀ (No. 6266) found at Kogmans Kloof, near Ashton, Robertson Division, in August, 1900, by my wife and myself.

♀ (*Type*). *Carapace* subequal to the fourth metatarsus in length but a little shorter than the first tibia and metatarsus; the surface with 6 well-marked, longitudinal bands; the median band pale ochraceous, broad, its cephalic portion slightly amplified, the posterior half of the thoracic portion narrower than the anterior half; black lateral bands as wide as the middle part of the median band; submarginal stripes pale yellow, broad, very sharply marked and parallel-sided; black marginal stripes also well marked. Anterior row of eyes strongly procurved, the medians situated some little distance above the line joining the upper margins of the lateral eyes; distance between the eyes of the second row distinctly exceeding their diameter; posterior quadrangle of eyes distinctly broader behind than in front, much broader than long, its lateral length less than its anterior width, the posterior eyes much smaller than those of the second row.

Sternum broadly oval, longer than broad, pale yellowish along the middle, infusate laterally.

Abdomen with pale yellowish median band or stripe above, and on each side of the band a row of dark spots, each bordered externally by a tuft of white hairs; anteriorly on each side is a broad black band; sides of abdomen densely spotted with yellow and black, or the black predominating; under surface pallid, finely spotted with black and provided with 3 black stripes (entirely black, with small white spots, in the subadult ♀). *Vulva* (pl. viii., fig. 20) resembling that of *Lycosa brunneipes* Purc., &c., and consisting of a simple plate with a 3-lobed posterior margin, the median lobe about as wide as the lateral ones and provided with 2 small brown convexities at the base, the lateral black spots on the plate remote from the hind margin.

Chelicerae pale yellowish in front, with a large oval ring of black; the 3 inferior teeth subequal.

Legs black, with pale yellowish stripes, the distal ends also more or less pale yellowish. All the tarsi with a long scopula on each side below, the scopula almost as well developed in the fourth as in the first leg. All the metatarsi with thin distal scopula on each side.

Spines on first tibia very long, the longer ones exceeding half the tibia in length.

Total length $7\frac{1}{2}$ mm.

(b) 1 ♀ (No. 12388) from the Waterfall Mountains, Tulbagh Division (*R. M. Lightfoot*, November, 1902). Legs lighter; oval marks on chelicerae C-shaped; abdomen not banded below.

(c) 1 ♀ (No. 5880) with cocoon from Clanwilliam (*R. M. Lightfoot*, November, 1899). Much lighter in colour, the legs yellowish, the abdomen without median band below, the chelicerae with a small basal and middle spot in front.

2. *TRABÆA VARIA* n. sp.

Specimens.—1 ♀ (No. 5865) from the Cedarbergen (between Clanwilliam and Pakhuis) and 1 ♂ (No. 5888) from Clanwilliam, both collected by Mr. R. M. Lightfoot in November, 1899.

♀ (*Type*). *Carapace* broad behind, much shorter than the fourth metatarsus and than the first tibia and metatarsus; colour pale yellowish, with a pair of broad, lightly infuscated lateral bands and narrowly infuscated lateral margins; submarginal stripes submoniliform, composed of 3 large, pale yellowish, partly confluent spots; head yellow, with a black patch at each eye. Anterior row of eyes less procurved, the median eyes placed slightly above the line joining the superior margins of the laterals, the eyes subequal; dorsal eye-area almost forming a square, being only very slightly wider behind than in front, and its lateral length only slightly less than its anterior width, the eyes of the second row very large and convex, their distance apart scarcely greater than their diameter, the posterior eyes also large.

Sternum pale yellowish, rotundate.

Abdomen pale yellowish, the upper and lateral surfaces with infuscate lines and markings. Vulva as in the preceding form.

Chelicerae pale ochraceous, with infuscate ring in front and 3 subequal inferior teeth.

Legs pale yellowish, strongly banded, except on the tarsi; tarsi I and II with thin, weak lateral scopula, tarsi III and IV and all the metatarsi apparently without any scopular hairs; spines on tibia I long but less than $\frac{1}{2}$ the tibia in length.

♂. *Carapace* (including the sides of the head) more darkly infuscated laterally, the submarginal yellow stripe narrow.

Abdomen black, with short, pale yellow median stripe in front.

Legs only faintly banded, pale yellowish, with some faint bands

on the femora; tibia I long and slender, thinner than the tibia of the pedipalps and clothed with a very few fine hairs.

Pedipalps with the femur infuscated, the patella and tibia pale yellowish; tibia slightly curved, much more than twice as long as thick, clothed with fine white hairs, its length a little exceeding that of the patella and only very slightly less than that of the tarsus; tarsus yellowish brown, the bulb + tarsus (seen from the side) slender, only a little thicker than the tibia.

Total length ♀ $5\frac{3}{4}$, ♂ $4\frac{1}{2}$ mm.

3. *TRABÆA UNICOLOR* n. sp.

Type.—1 ♂ (No. 3984) from French Hoek (W. F. P., October, 1898)

♂. Whole spider unicolorous, pale yellowish; the head with a black patch at each eye; the spines and some of the hairs black.

Carapace shaped as in *varia* n. sp. Anterior row of eyes very strongly procurved; eyes of the second row smaller and less convex than in *varia* n. sp., their distance apart much greater than their diameter; posterior eyes rather small; dorsal eye-area parallel-sided but a little wider than long.

Sternum very broad, nearly rotund.

Legs.—Tibia I stout and rather short, stouter than the tibia of the pedipalps, thickly clothed with short black hairs above and longer ones below.

Pedipalps.—Tibia short and stout, not twice as long as thick, subequalling the patella in length but considerably shorter than the tarsus, and clothed with black hairs. Tarsus + bulb of palpal organ (seen from the side) small, not thicker than the tibia, the apical part of tarsus whitish.

Total length $3\frac{1}{4}$ mm.

4. *TRABÆA NIGRICEPS* n. sp.

Type.—1 ♂ (No. 5706) from Doornnek, in the Zuurbergen, Alexandria Division (I. L. Drège, October, 1899).

♂. *Carapace* broad, with a single, very wide, infusate median band; this band as wide as the ocular area, black in the ocular region but paler behind, parallel-sided, becoming narrower only quite posteriorly, its hind end with a yellow emargination; lateral parts of carapace very broadly pale yellowish, the margins with fine black lines and some submarginal spots. Head rather high in front, the distance of the eyes of the second row from the anterior margin, if anything, slightly greater than the diameter of these eyes, which is

also less than their distance apart; anterior row of eyes very strongly procurved; dorsal eye-area distinctly wider behind than in front and distinctly transverse, the anterior width distinctly exceeding the lateral length.

Sternum longer than broad, nearly rotundate, pale yellowish, with a black submarginal band on each side and a median black spot behind.

Abdomen black; under side pale yellowish, with a median row of black marks.

Chelicerae pale yellowish, with C-shaped black mark in front, the basal inferior tooth smaller than the other two.

Legs pale yellow, with small black spots and narrow bands, especially on the femora, the coxae with a black spot each in the middle below. Tibia I with ordinary pallid hairs, slightly slenderer than the tibia of the pedipalps.

Pedipalps pale yellowish; femur with some black spots; tibia blackened on the outer and especially on the inner surfaces, the blackened surfaces with long black hairs; seen from the side the tibia appears slightly curved, nearly twice as long as thick, subequal to the patella in length but a little shorter than the black tarsus; tarsus + bulb of palpal organ (seen from the side) stout, much stouter than the tibia.

Total length $4\frac{1}{3}$ mm.

GEN. ARTORIA Thor.

ARTORIA FASCICULARIS n. sp.

Specimens.—2 ♂ ♂ and 1 subadult ♀ from Maitland Flats and Hout Bay, in the Cape Division (Nos. 6089 and 12201), collected by my wife and myself.

♂ ♂ (*Types*). *Carapace* dark brown, high in front, flattened above, the flattened part thickly covered with closely appressed white hairs forming a broad parallel-sided median band; the lateral parts covered with olive-brownish hairs and the margins with whitish hairs. Dorsal eye-area subquadrate, slightly wider behind than in front, its lateral length equal to its anterior width; eyes of the middle row rather large, about $1\frac{1}{2}$ times their diameter apart; eyes of the anterior row subequal, the laterals situated below the centre of the eyes of the second row and about midway between these and the anterior margin of carapace, the median eyes with their lower margins a little below the level of the superior margins of the lateral eyes.

Abdomen with a very broad, almost parallel-sided median band of closely appressed, white or pale brownish yellow hairs, almost covering the dorsal surface, this band provided with scattered long black setæ and on each side posteriorly a series of fascicles of long white ones; sides of abdomen black, with brownish hairs, the lower parts with white hairs intermixed; ventral surface black.

Sternum black. *Chelicerae* with 2 inferior teeth.

Legs testaceous, clothed with white hairs, the femora partly infuscated or banded; anterior tarsi and at least the distal part of anterior metatarsi thinly scopulate at the sides; first tibia with 3 outer and 3 inner long spines in addition to a small apical pair.

Pedipalps brown, the tibia slightly longer than the patella, the two segments together much longer than the tarsus; palpal organ not prominent, provided with a sharp spur at outer edge near the middle and a smaller point both in front of and behind the spur, in addition to the curved apical process.

Total length ♂ ♂ $5\frac{1}{4}$ – $5\frac{1}{2}$ mm.

GEN. PARDOSA C. Koch.

1. PARDOSA LYCOSINA n. sp.

Specimens.—(a) 2 ♀ ♀ (No. 4234) from Dunbrody, on the Sundays River, Uitenhage Division (*Rev. J. A. O'Neil*).

♀ ♀. *Carapace* brownish black, with reddish yellow median and submarginal bands, all with zig-zag edges, the submarginal bands with white hairs. Anterior median eyes considerably larger than the laterals and much nearer to them than to one another, the lower margins of these eyes in a straight line.

Sternum brownish black, with short median yellow stripe anteriorly; in one specimen merely lightly infuscated.

Abdomen blackened, the dorsal surface with a median and 2 lateral yellowish stripes anteriorly, followed by paired yellowish transverse spots which are often confluent in pairs in the median line and provided each with one or more small black dots; ventral surface pale yellowish. Vulva (pl. viii., fig. 21) large, with large 3-lobed fovea behind containing a narrow median bar which is broadly dilated posteriorly, the ends of the cross bar themselves strongly curving forwards.

Legs dark, with alternate yellow and black bands; all the tarsi and the first 3 pairs of metatarsi scopulate, the posterior ones at the sides only; fourth metatarsus equal to or shorter than the tibia and patella.

Chelicerae with 3 inferior teeth, the proximal one smallest.

Length $5\frac{3}{4}$ –8 mm.

(b) 1 ♀ (No. 4272) from Clanwilliam (*R. M. Lightfoot*).

2. *PARDOSA UMTALICA* n. sp.

Specimens.—3 ♀ ♀ and 1 juv. (No. 12002) from Umtali, Mashonaland (on Baviaanskopje, 3 miles east of the town); also 1 ♂ apparently belonging to this species captured at the same time and place by Mr. D. Livingstone Patrick in June, 1902.

♀ ♀ (*Types*). *Carapace* with broad black lateral bands, the yellow median band narrower, its cephalic portion 3-pronged or almost obliterated; the submarginal yellow stripes very broad, furnished with 3 black markings laterally; the lateral borders narrowly blackened. Eyes much as in *lycosina* n. sp., but the anterior row with the lower margin in a straight or slightly procurved line.

Sternum pale yellowish. *Chelicerae* with 2 inferior teeth, the proximal one being smallest (rarely with a small third distal tooth).

Abdomen black, the dorsal yellow markings as in *lycosina* n. sp., or almost obliterated; ventral surface pale yellowish. Vulva (pl. viii., fig. 22) with longitudinal fovea, which widens posteriorly and contains a median keel, also dilated posteriorly.

Legs pale yellowish or more or less darkly infuscated, with black rings; fourth metatarsus equal to or longer than the tibia and patella; anterior legs weakly scopulate; inferior spines on anterior tibia and metatarsus long.

♂. *Carapace* blackened; median yellowish band present but the submarginal ones obsolete.

Legs very slender, the femora blackened, the more distal segments pale yellowish, lightly infuscated in parts, not distinctly banded.

Pedipalps black; the tarsus pale yellowish distally, terminating in a strong black claw, the outer edge deeply sinuate below, the bulb not large, occupying nearly two-thirds of the length of the tarsus, which is slightly less than that of the tibia and patella together.

Length ♀ ♀ 4–4½, ♂ 3¼ mm.

3. *PARDOSA FOVEOLATA* n. sp.

Specimens.—(a) 1 ♀ and 4 ♂ ♂ (No. 9803) from Port St. Johns, Pondoland (*Guy Shortridge*).

♀ (*Type*). *Carapace* broadly yellow in the middle, black at the sides. Anterior row of eyes lightly procurved, the medians larger than the laterals and much nearer to these than to each other.

Sternum black, with median yellow line. *Chelicerae* with the inferior middle tooth larger than the proximal and distal teeth.

Abdomen black, with yellow spots, the under side pale yellowish. Vulva (pl. viii., fig. 23) very large, containing a large, longitudinal, black-rimmed fovea, which is dilated behind.

Legs blackened, more yellowish distally, the third and fourth metatarsi blackened at apex; spines on anterior tibia and metatarsus long; fourth metatarsus subequal to the tibia and patella.

♂ ♂. *Carapace* as in ♀ or entirely black.

Abdomen almost entirely black, also below. *Sternum* black.

Legs with the femora blackened, the distal segments and the apex of the femora pale yellowish, but the distal two-thirds of the third metatarsus deep black.

Pedipalps black, the bulb not large, only about $\frac{1}{2}$ the tarsus in length and provided at base below with a short sharp process directed forwards and outwards, the distal part of the tarsus longish, cylindrical in appearance, when seen from the side, and covered above with a dark grey scopula; the tarsus longer than the tibia and patella together, the distal claw inconspicuous.

Length ♀ $4\frac{3}{4}$, ♂ ♂ $4\frac{1}{4}$ mm.

(b) 2 ♀ ♀ from Kentani, Transkei (*Rev. F. C. Kolbe*). Anterior row of eyes scarcely or not at all procurved.

(c) 2 ♀ ♀ from Van Stadens River, Uitenhage Division (*I. L. Drège*). Anterior row of eyes not procurved; legs and sternum yellowish in one specimen and black or at least very dark in the other.

(d) 1 ♀ from Pocaltsdorp, George Division (*Miss L. Leipoldt*).

(e) 1 ♂ from Umtali, Mashonaland (*D. L. Patrick*, November, 1901). Somewhat lighter in colour than the ♂ ♂ of the typical form.

4. *PARDOSA LEIPOLDTI* n. sp.

Specimens.—(a) 1 ♀ (No. 3562) from Clanwilliam (*C. L. Leipoldt*, October, 1897) and 1 ♂ from the same locality (*R. M. Lightfoot*, November, 1899).

♀ (*Type*). *Carapace* with infusate lateral bands, the median band narrow, pale yellowish, 3-pronged on the head, the submarginal stripes broad, pale yellowish, becoming slightly obscured towards the finely blackened lateral margins. Anterior row of eyes straight, the median eyes slightly larger than the laterals and nearer to them than to one another.

Sternum pale yellow, with 3 black marginal dots on each side and a large oval infusate mark with yellow centre nearer the middle.

Abdomen black above, with the usual yellow pattern (much as in *lycosina* n. sp.). The sides and under surface pale yellowish. Vulva (pl. viii., fig. 24) with long narrow fovea extending from anterior end and transversely widened posteriorly and containing a **L**-shaped keel, the cross bar of the keel with the ends bent forwards.

Legs pale yellow, with dark hairs but without rings and marked with black only at the junction of the femora with the trochanters; scopular hairs on anterior legs very scanty; spines on anterior tibia and metatarsus very long; fourth metatarsus equal to the tibia and patella.

Chelicerae pallid, the proximal inferior tooth small, the middle tooth large, larger than the distal tooth.

♂. *Carapace* with the submarginal yellow stripe on each side much narrower than in the ♀.

Abdomen with median yellow band above reaching to hind end.

Sternum blackened, with narrow yellow median line anteriorly.

Pedipalps pale yellowish; the tibia somewhat thickened distally, densely covered with deep black hairs; tarsus very slightly shorter than the tibia, its outer side with mesial sinus below, its free distal portion short and conical, forming only about $\frac{1}{3}$ of the entire length, the bulb not large, rounded below.

Length ♀ $5\frac{1}{2}$, ♂ $4\frac{1}{4}$ mm.

(b) 1 ♀ from Ramskop, Clanwilliam Division (*C. L. Leipoldt*).

(c) *Var. mashonica* n. var.—1 ♀ (No. 12527) with cocoon from Umtali, Mashonaland (*D. L. Patrick*). *Carapace* with the median band transversely dilated behind on the head, the thoracic portion also strongly dilated anteriorly; sides with a row of black spots in the broad yellow submarginal stripe. *Sternum* without infuscate marks, except a few black lines at the edges. *Legs* strongly banded with black (except on the tarsi), the first and fourth tibia especially being more black than yellow.

5. *PARDOSA CLAVIPALPIS* n. sp.

Specimens.—(a) 15 ♀ ♀, 2 ♂ ♂, and 3 juv. (Nos. 6130, 12182, &c.) from various parts of the Cape Peninsula (Bergvliet, Retreat, Capetown), collected by Mr. R. M. Lightfoot, who first found the species, and myself.

♀ ♀ (*Types*). *Carapace* infuscated, the median yellow band narrow, generally dilated behind on the head, the submarginal yellow stripe narrow, distinct or somewhat obscured, abbreviated anteriorly, covered with white hairs. Anterior row of eyes straight,

the median eyes larger than the laterals and nearer to them than to one another.

Sternum dark brown or black, sometimes with median yellow line in front.

Abdomen with the dorsal surface and the sides blackened, the dorsal surface with the usual yellow pattern; ventral surface pale yellowish. Vulva (pl. viii., fig. 25) allied to that of *leipoldti* n. sp., but differing in having the anterior part of the median groove and keel strongly widened.

Chelicerae with small proximal inferior tooth, large middle tooth, and large or small distal tooth.

Legs with alternate pale yellowish and infusate bands.

♂♂. *Carapace* and *abdomen* blacker, the submarginal yellow stripe of the former obsolete, the abdomen with a median infusate stripe below.

Legs pale yellowish, not transversely banded, the femora marked longitudinally and often also obliquely with black above, that of first leg broadly blackened in basal half in front and behind or in front only.

Pedipalps black, with some yellow on the patella; tibia slightly thickened distally and densely covered, like the basal half of the tarsus, with deep black hairs; tarsus slightly shorter than the tibia and patella, the free distal portion short, forming less than half of the whole length and provided above with the usual scopula; bulb not enlarged.

Length ♀♀ $5\frac{1}{4}$ – $6\frac{1}{4}$, ♂♂ 4 – $4\frac{3}{4}$ mm.

(b) 1 ♀ from Worcester (*R. M. Lightfoot*).

(c) 1 ♀ and 1 ♂ from the Hot Baths near Montagu (*W. F. P.*).

Legs of ♂ without the black dorsal stripe.

(d) 1 ♀ from Kimberley (*P. L. Selater*).

6. *PARDOSA CRASSIPALPIS* n. sp.

Specimens.—(a) 13 ♀♀ with cocoons, 5 ♂♂, and several young (Nos. 12613 and 12652) from the river-bed at the Hot Baths near Montagu, collected by my wife and myself in November, 1902.

♀♀ (*Types*). *Carapace* with black lateral bands, the median yellow band broad, dilated behind on the head; submarginal yellowish bands broad, with a row of black spots laterally, the margin itself marked with a series of black lines. Anterior row of eyes straight or slightly procurved, the median eyes larger than the laterals and nearer to them than to one another.

Sternum pale yellowish. *Chelicerae* with 3 inferior teeth, the proximal and generally also the distal tooth small, the middle tooth large.

Abdomen black at the sides above, the usual median pattern more or less fused to a single broad yellow area extending to hind end; lateral and ventral surfaces pale yellowish, the lateral surface with black spots. Vulva (pl. viii., fig. 26) with large, somewhat triangular fovea, which has wavy margins and is narrow in front, the broad posterior part containing a pair of black sublunate convexities.

Legs pale yellowish, spotted and banded with black, except on the tarsi; inferior spines on tibia and metatarsus of first leg very long.

♂ ♂. Resembling the ♀ in colour, except that the more distal segments of the legs are not banded and the first femur is more or less broadly blackened at base in front.

Pedipalps yellowish and infuscated, or more or less blackened, resembling those of *clavipalpis* n. sp., but with the tarsus very much enlarged and longer than the tibia and patella together, the free distal portion very short, forming scarcely $\frac{1}{4}$ of the whole length.

Length ♀ ♀ $4\frac{1}{4}$ – $5\frac{1}{4}$, ♂ ♂ 4 – $4\frac{1}{2}$ mm.

(b) 7 ♀ ♀ with cocoons and 1 ♂ from Prince Albert (*W. F. P.*, September, 1896).

(c) 5 ♀ ♀ and 4 ♂ ♂ from Dunbrody, on the Sundays River, Uitenhage Division (*Rev. J. A. O'Neil*).

(d) 1 ♀ from Van Stadens River, Uitenhage Division (*I. L. Drège*, January, 1899).

(e) 4 ♀ ♀ from Doornnek, in the Zuurbergen, Alexandria Division (*J. L. Drège*, October, 1899).

(f) 3 ♀ ♀ from Hanover and Vlagkop (5–6 miles N. of Hanover) (*S. C. Cronwright Schreiner*).

(g) 2 ♀ ♀ from Kentani, Transkei (*Rev. F. C. Kolbe*).

All these specimens are very similar in their colouration. The males are easily recognised by their remarkable pedipalps.

7. *PARDOSA SCHREINERI* n. sp.

Specimens.—4 ♀ ♀ with cocoons and 3 ♂ ♂ (No. 10052) from Hartebeeste Hoek, 9–10 miles S.E. of De Aar, Hanover Division (*S. C. Cronwright Schreiner*, January, 1902).

♀ ♀ (*Types*). *Carapace* with the median yellow band moderately

wide, broadly dilated behind on the head, the submarginal yellow stripes very broad, with or without a row of black marks laterally, the lateral margins finely blackened. Anterior row of eyes straight, the median eyes larger than the laterals and nearer to them than to one another.

Sternum pale yellowish, with 2-3 black marginal dots on each side.

Abdomen black at the sides above, with the usual series of yellow dorsal markings; ventral surface and the sides pale yellowish, the sides more or less spotted with black. Vulva (pl. viii., fig. 27) with a deep triangular incision behind containing a brown cordate plate with a pair of longitudinal convexities and a median groove on its surface.

Chelicerae with the middle inferior tooth larger than the other two.

Legs pale yellowish, with faint or strong infuscate or black bands, at least on the more proximal segments; inferior spines on first tibia and metatarsus long.

♂ ♂. *Carapace* entirely blackened, except along the median band. Ventral surface of *abdomen* pale yellowish or more or less blackened. *Sternum* black. *Legs* pale yellowish, the anterior femora blackened at base in front, the other legs with the femora and some of the other segments often partly blackened.

Pedipalps black, resembling those of *crassipalpis* n. sp. in appearance, but not so large, the tarsus being slightly shorter than the tibia and patella together, the free distal part of the tarsus very short, forming only about $\frac{1}{4}$ of the whole length and terminating in a strong, conspicuous, curved black claw.

Length ♀ ♀ $4\frac{1}{2}$ - $4\frac{3}{4}$, ♂ ♂ 4 - $4\frac{1}{4}$ mm.

The males of the South African species of *Pardosa* known to me may be distinguished as follows:—

a. Tibia of pedipalps not much more densely hairy than the more proximal segments.

a¹. Tarsus of pedipalps with the free distal part which projects beyond the bulb short, forming only about $\frac{1}{3}$ of the whole length, appearing conical when seen from the side and terminating with a conspicuous curved claw.
Mashonaland *P. untalica* n. sp.

b¹. Tarsus of pedipalps with the free distal part long, appearing more cylindrical when seen from the side, the terminal claw inconspicuous.

a². Palpal organ very large. Cape Colony *P. manubriata* Sim.

b². Palpal organ of moderate size. Pondoland, Mashonaland

P. foveolata n. sp.

- b.* Tibia of pedipalps thickly covered with stiff black hairs, especially below, and much more hairy than the more proximal segments.
- a*³. Tarsus of pedipalps much enlarged, longer than the tibia and patella together. Montagu, Pr. Albert and Uitenhage Divisions
P. crassipalpis n. sp.
- b*³. Tarsus of pedipalps smaller, not longer than the tibia and patella together.
- a*⁴. Tarsus of pedipalps with the free distal portion forming about $\frac{1}{4}$ of the whole length and ending with a very conspicuous, strong curved claw.
Hanover Division. *P. schreineri* n. sp.
- b*⁴. Tarsus of pedipalps with the free distal portion longer, forming about $\frac{1}{3}$ of the whole length and without conspicuous claw.
- a*⁵. Pedipalps pale yellowish. Clanwilliam *P. leipoldti* n. sp.
- b*⁵. Pedipalps blackened. Cape and Montagu Districts
P. clavipalpis n. sp.

EXPLANATION OF PLATE VIII.

FIG.

1. *Anomalomma schreineri* n. sp. Vulva.
2. „ *bisinuata* n. sp. Do.
3. *Proerippa lightfooti* n. sp. Do.
4. *Pterartoria subcrucifera* n. sp. Do.
5. „ *caldaria* n. sp. Do.
6. „ *sagæ* n. sp. Do.
7. „ *flavolimbata* n. sp. Do.
8. „ „ „ Palpal organ.
9. „ *polysticta* n. sp. Vulva.
10. „ *fissivittata* n. sp. Do.
11. *Lycosa patricki* n. sp. Do.
12. „ *aurata* n. sp. Do.
13. „ *bimaculata* n. sp. Do.
14. „ *umtalica* n. sp. Do.
15. „ *o'neili* n. sp. Do.
16. „ *nivosa* n. sp. Do.
17. „ *cretata* n. sp. Do.
18. „ *dregei* n. sp. Do.
19. „ *biampliata* n. sp. Do.
20. *Trabæa lineata* n. sp. Do.
21. *Pardosa lycosina* n. sp. Do.
22. „ *umtalica* n. sp. Do.
23. „ *foreolata* n. sp. Do.
24. „ *leipoldti* n. sp. Do.
25. „ *clavipalpis* n. sp. Do.
26. „ *crassipalpis* n. sp. Do.
27. „ *schreineri* n. sp. Do.



VI.—*Descriptions of some New Species, and Characters of Three New Genera, of Araneidea from South Africa.*—By the Rev. OCTAVIUS PICKARD-CAMBRIDGE, M.A., F.R.S., &c.

(With Plates IX., X., XI., XII.)

THE spiders included in the following pages can only be considered a very scanty representation of the order *Araneidea* in the locality whence they hail. They are, however, of much interest in being, most of them if not all, good species, and not, I think, before described. Mr. W. F. Purcell, of the South African Museum, Cape Town, to whom I am indebted for these examples, tells me that he intends to take up this order seriously, and I will only say in addition to a strong commendation of this praiseworthy resolution, that I sincerely hope he will add copious illustrations to the descriptions and diagnoses he may give to the scientific world.

THERAPHOSIDÆ.

SUB-FAMILY MIGINÆ.

GEN. NOV. CÆDMON.*

Moggridgea, Cambr.: ad partem. *M. abrahamii*, Cambr.

Migas, L. Koch-Sim. ad partem.

Closely allied to *Moggridgea*, but differs in the position of the eyes. These in *Cædmon* are (like those of *Moggridgea*) in two transverse rows, but the anterior row is very nearly straight, the slight curve, if any, having its convexity directed either forward or backward; the two rows are thus almost parallel, while in *Moggridgea* the convexity of the anterior row is very strongly directed backwards, the lateral eyes on either side (of the two rows) being in that genus also very widely separated. The laterals of the anterior row are larger than the central, and the type of *Moggridgea* is *M. dyeri*, Cambr., that of *Cædmon* is *M. abrahamii*, Cambr. Of neither species, so far as I know, has the male been described. M. Simon considered that *M. abrahamii* belonged to the genus

* Nom. propr.

Migas, L. Koch, but though its eye-position accords fairly well there is a strong and important difference in the form of the cephalothorax. This in *M. abrahamii* is as broad as long (or at any rate only slightly longer than broad) and well rounded on the sides, while in *Migas* it is considerably longer than broad, and its sides are getting on towards parallel.

The height of the clypeus is equal to half that of the facial space. The central eyes of the anterior row are rather larger than the laterals. The under sides of the metatarsi and tibiæ of the first and second pairs of legs are furnished with powerful spines. The tarsi of those pairs are very short, of an oval form in the males, tapering in the females. The superior terminal tarsal claws are armed either with 2 inferior teeth (♂) or a geminated tooth (♀), springing from a short but distinct claw-joint.

CÆDMON ABRAHAMII Cambr.

Moggridgea abrahamii Cambr.

P. Z. S., 1889, p. 41. Pl. II., fig. 3.

Hab. Natal, South Africa.

CÆDMON THORACICA, sp. n. (Pl. IX., fig. 1.)

Adult male, length very nearly $4\frac{1}{2}$ lines; length of cephalothorax 2 lines, breadth ditto.

Cephalothorax equal in length and breadth, rather flattened, and almost circular; close in front of the thoracic indentation (which is curved, the convexity directed forwards) is a strongish rounded eminence. The surface of the cephalothorax is coarsely granulose; its colour is deep brown, and the height of the clypeus equals half that of the facial space.

Eyes of anterior row equally separated by a space rather exceeding the diameter of one of the centrals. The fore-laterals are largest of the eight. The convexity of the curve of this row, looked at vertically from above and behind, is very slightly directed forwards. Eyes of the posterior row form a curve in same direction, but rather stronger than that of the anterior. The two eyes at each end of the posterior row are very near to each other but not quite contiguous. Each lateral eye of the posterior row is very little more than its own diameter's distance from the anterior lateral on the same side. In front of and between the fore-central eyes is a vertical spine with a much smaller one on each side of it.

Legs not greatly different in length—4, 1, 2, 3, tolerably strong. Colour deep brown, especially the femora and tibiae, which are nearly black. Tarsi very short, oval, and of a yellow-brown hue. Spines strong beneath the tibiae and metatarsi of the first and second pairs, abruptly bent or somewhat hooked at their extremities. They do not appear to be quite regular or symmetrical. *Metatarsi* of the first pair have 2 rows of spines; *tibiae* 3 rows varying in number in each row, 2-7. The spines beneath the *tibiae* of the second pair are neither so numerous nor so strong as on those of the first pair. The *genuae* of the first and second pairs have 4 spines at their fore end. It is impossible to say, in absence of a series, whether the number and position of the above spines may or may not eventually afford a good specific distinguishing character.

Palpi long; radial joint almost double the length of the cubital, very tumid along the under side, but pinched in or compressed there rather abruptly near its fore extremity, beneath which it is furnished with long bristly hairs. Digital joint small, cleft at its anterior extremity; palpal bulb rather large, somewhat flattened-globular, drawn out from near the middle into a tapering black spur as long as the greatest width of the palpal bulb. The colour of the bulb is pale yellow-brown, encircled with a broad dark yellow-brown zonal band margined on each side with black.

Maxillae rather long, cylindrical, slightly tapering, double as long as broad, divergent.

Labium rather broader than long at base, narrowing to the apex, which is rounded. Near the apex are 4-5 short tapering not very strong bristles, with some rather longer and shorter hairs.

Sternum much longer than broad, narrowing gradually to the fore extremity, which is the same width as the base of the labium, furnished with a few slender, tapering, bristly hairs.

Abdomen oval; broadest behind, of a dark purplish brown colour, clothed pretty thickly with short, slightly curved, obtuse spiniform bristles.

Hab. Under stones.

Loc. Simon's Town (Cape Peninsula), Cape of Good Hope.

CEDMON AFFINIS, sp. n. (Pl. IX., fig. 2.)

Adult male, length, 5 lines; length of cephalothorax 2 lines; breadth $1\frac{3}{4}$ lines.

This spider is very nearly allied to *C. thoracica*; its cephalothorax, however, is longer than broad, and is thus of a more oblong and less

circular form, and there is scarcely any elevation in front of the thoracic indentation. The profile line of the cephalothorax forms an almost even curve in front of the thoracic indentation; the eyes occupy a rather broader transverse area, but their general position and relative size are very similar to those of *C. thoracica*. The legs are not quite so strong; the metatarsi of the two anterior pairs are longer, the tarsi narrower and more cylindrical: those of *C. thoracica* being broader and of an oval form, and the metatarsi and tibiae equal in length, while in the present species the metatarsi are longer than the tibiae. In the present species also the colour of the tarsi and metatarsi of the first two pairs is a clear yellow, and the spines beneath the tibiae and metatarsi differ a little in number and strength. The vertical spine in front of the fore-central eyes is closer to them than in *C. thoracica*, and the spine-like bristles on the abdomen are tapering in form and less coarse. The bristles at the apex of the labium are several of them dentiform.

Hab. Lion's Hill. "Dug out of a deep tubular hole in the ground with a trap-door cover."

CÆDMON CONGENER, sp. n. (Pl. IX. fig. 3.)

Adult male, length $3\frac{1}{2}$ lines.

It is possible that this spider may be only a small example of the last species, *C. affinis*. It agrees with that spider in the cephalothorax being longer than broad, and it has no elevation in front of the thoracic indentation. The eye-area, however, appears to be shorter in its transverse measurement and broader from back to front, and the surface granulations, from the eye area to the hinder extremity, are almost obsolete along a broad tapering central band; and the space between the lateral pair of eyes on each side is much larger than in either of the foregoing species. The colour of the legs is a uniform dull yellow-brown, excepting the femora, which are of a darker hue. At the apex of the labium are some longer tapering bristly hairs, and behind them several small short dentiform spines.

The armature of the two first pairs of legs is very like that of the other species, the tarsi are more like those of *C. thoracica*, and the form and structure of the palpi do not appear to present any reliable difference. The abdomen is covered pretty thickly with short curved strongish mostly slightly tapering spine-like hairs.

I have thought it best, at any rate for the present, to record this as a distinct species, though a longer series of the group can alone determine whether it may not belong to a species in which there is a

considerable variety in the details of some portions of structure in different individuals.

A single example under stones. "Lion's Hill," near Cape Town.

CÆDMON DUBIA, ? sp. n. (Pl. IX., fig. 4.)

Adult female, length 6 lines.

Length of cephalothorax $2\frac{1}{2}$ lines; breadth $2\frac{1}{3}$ lines.

Allowing for some obvious sexual difference, this example might be the female of either of the three foregoing spiders. The eye-area is most similar to that of *C. congener*, and the cephalothorax in its general form (longer than broad) agrees with both that and *C. affinis*. There is scarcely any elevation in front of the thoracic indentation. Its surface is devoid of granulations, and the hairs on the abdomen are all finer and more tapering. The broad but strongly tapering form of the tibial, metatarsal, and tarsal joints of the first two pairs of legs, with their armature, is certainly only a sexual character. The maxillæ and labium are pretty thickly covered with short dentiform spines, which is also probably a sexual character. The sternum has two roundish bare spots in a transverse line across the middle.

The general colour is a uniform yellow-brown, that of the abdomen being dull purplish brown, closely mottled (in spirit of wine), with a pale hue.

A single example. Muizenberg (Cape Peninsula).

Another example of the female sex, from "Lion's Hill," under stones, length $4\frac{1}{2}$ lines, is either a small, or immature, female of *C. dubia*.

A nest of some spider of this group from under a stone, Muizenberg, accompanied the above spiders. Its length is $9\frac{1}{2}$ lines, of an almost cylindrical bag-form, rounded at the bottom. Greatest width $4\frac{1}{2}$ lines. Closed at the top with a nearly round, thin, wafer-form, hinged lid a little over 3 lines in diameter, covered with granulations of dark sand-grains, &c.

FAMILY ZODARIIDÆ.

GENUS DIORES, Sim.

DIORES SIMONII, sp. n. (Pl. IX., fig. 5.)

Adult male, length $1\frac{2}{3}$ lines ($3\frac{1}{2}$ mm.).

Adult female, 2 lines.

Cephalothorax oval, slightly rounded before, moderately convex above, profile line forming a slight, even curve; lateral marginal compression at caput slight. Colour yellow, with the oblique indentation on each side of the caput suffused with dusky brown. The height of the clypeus is about half that of the facial space.

Eyes in two transverse curved rows of which the convexity of the curves is directed backwards (the curve of the posterior row strongest). The fore-centrals are largest, the rest much smaller and about equal in size. The quadrilateral figure formed by the four central eyes is very nearly quadrate, being a little wider than long. The interval between the fore-centrals is equal to a diameter, that between the hind-centrals is equal to two diameters, and the interval between each of the hind-centrals and the hind-lateral next to it is a diameter. The eyes of each lateral pair are separated by a distinct, but narrow, interval.

Legs rather long, slender—4, 1, 2, 3. Colour yellow, like that of the cephalothorax, in some examples (probably) slightly suffused with dusky brownish; furnished with a few small, inconspicuous spines.

Palpi short, similar to the legs in colour. Cubital and radial joints very short, about equal in length, the former bent and clavate, the latter with a short obtuse prominence, near the outer side of the under part furnished with a few bristly hairs; the outer side is produced into a long, bifid, dark brown apophysis, the two portions of which are parallel, of equal length, tapering and sharp-pointed. The digital joint is large, oval, pointed in front, with a terminal, simple, slightly curved claw. Palpal organs well developed, with corneous processes and spines.

Falces moderately long, strong, straight, vertical, and conical; similar to the cephalothorax in colour; falx very small.

Maxille moderate in length and strength, rounded at their extremity, with an oblique indentation in front and inclined a good deal towards the labium.

Labium broader than high, rounded at the apex.

Sternum broad, shield-shape, the hinder extremity with a small, abrupt terminating point. This part, with the maxille and labium, is similar to the legs in colour.

Abdomen oval, blackish above, yellow underneath and on the sides, tolerably convex above; the larger part of the upper side forwards covered with a coriaceous plate of a dark shining brown hue. Inferior spinners large, superior very small and inconspicuous.

The female resembles the male in colours and general appearance, but the abdomen wants the coriaceous covering on the upper side. The genital aperture is large and of very characteristic form. The *palpi* have some spines on the inner side of the radial and digital joints, and the latter ends with a longish, simple, slightly curved claw.

Hab. Cape Peninsula.

DIORES COGNATA, sp. n. (Pl. IX., fig. 6.)

In size, colours, and general characters this species resembles the foregoing, but the relative position of the eyes of the hinder row is different, as also is the form and structure of the *palpi*.

The *eyes* of the hind-central pair are not much further apart than each is from the hind-lateral next to it; the fore side of the central quadrangle is a little shorter than the hinder side, and the difference in the form of the radial apophysis, as well as of the structure of the palpal organs, though quite distinct, can only be satisfactorily conveyed by drawings from a similar point of view.

Hab. Cape Peninsula.

This species is very nearly allied to *D. simonii*, and was contained among the examples received of that species as though identical.

FAMILY THERIDIIDÆ.

GENUS ENOPLOGNATHA, Sim.

ENOPLOGNATHA MOLESTA, sp. n. (Pl. X., fig. 1.)

From a careful examination and comparison of nine males and twenty females sent to me by Mr. Purcell from five different localities at the Cape of Good Hope, I have concluded that they are all of one species, the individuals of which vary exceedingly in size, and in some points also of structure. Taking as the type of the following description a male example in which the characters are shown in the most highly developed form, I shall subsequently remark upon the variations in other examples.

Adult male (typical example), length 3 lines; adult female, length 4 lines. (With regard to mere size, I may note here that the variation in this respect is from a maximum in the male of 3 lines to a minimum of $1\frac{1}{2}$, and in the female of from 4 lines to 2.)

The colour of the cephalothorax and legs is a pale brownish yellow, with a slight tinge of darker brown at the joints. The legs

are 1, 4, 2, 3, furnished with hairs only, excepting the metatarsi of the first and second pairs, along the under sides of which are some short, obtuse spines mostly ending with a short, fine bristle.

The *eyes* are small and subequal in size; they are in two transverse rows. The interval between those of the hind-central pair is slightly over a diameter, or about half that between each and the hind-lateral eye next to it. The four central eyes form very nearly a square. Those of each lateral pair are contiguous to each other, and placed obliquely on a small tubercle. The fore-central pair are seated on a small, transverse, tubercular prominence. The height of the clypeus is half that of the facial space.

The *palpi* are similar in colour to the legs, slender, furnished with hairs only. The cubital joint is curved, slightly claviform, the radial enlarges slightly and gradually to its anterior extremity and is nearly double the length of the cubital. The digital joint is small oval; the palpal organs are compact and not very complex in structure.

The *falces* are yellow-brown, very strong, divergent, equal in length to the cephalothorax, directed forwards, of a somewhat tapering form, largest near the middle and rather prominent on the upper side, which is furnished with minute denticles each ending with a small bristle; a group of the same also occupy a space beneath the base of each falx. About the middle of the under side of the falx is a very strong, but tapering, sharp-pointed tooth directed forwards, its point being level with the articulation of the fang. In front of this large tooth are two others very much smaller, nearly but not quite in a straight longitudinal line; the anterior is the strongest, nearly triangular, and not far from the articulation of the fang, the other smaller and of a somewhat bent form, like that of the large one before mentioned. Towards the base, in front, of the large tooth is a minute denticle. The fang is long, strong, and curved; when at rest it is directed backwards in the same line as the falx; it is a little protuberant from near the base to about the middle.

The *maxillæ*, *labium*, and *sternum* are suffused with a darker, dull, yellow-brown hue.

Abdomen oval, of a dull chalky-white colour, the whole upper side occupied by a leaf-shaped marking outlined by a more or less continuous black angulated line; the hinder extremity of the marking truncated in an incurved form. Along the middle of this marking is a longitudinal black central line crossed anteriorly by another. The spinners are on a black patch, above which on each side are some

short broken black lines. The under side of the abdomen is whitish, divided longitudinally along the middle with a black line.

Found under stones.

The female resembles the male in colours and markings. Her falces are much shorter and smaller, though still powerful, nearly perpendicular and not divergent; their colour is a rich dark reddish brown, and their anterior side is pretty thickly granulose, or furnished with small denticles. In the female the legs generally show traces of a faint dull brownish annulation, and the colours are generally darker than those of the male, with often a more or less considerable diffusion and obliteration of the pattern on the abdomen. The genital aperture, though characteristic, is not apparently so regular and symmetrical in its form as in numbers of other spiders, and a considerable similarity will probably be found in different species of this genus.

The chief variations, besides those of size, which I have noted are in the male. These occur in the relative position of the eyes; in some examples the hind-centrals are nearer together than in others. There is also a difference in the length and strength of the falces and of their armature. The relative length also of the cubital and radial joints of the palpi differ; in some examples the radial is nearly double the length of the cubital, in others it only slightly exceeds it. The short blunt spines also beneath the metatarsi of the first pair of legs vary in number and strength.

The examples received were from the Cape Peninsula, Nieuwoudtville, Bokkeveld Mountains, Calvinia Division, Ceres Village, and Clanwilliam Village, Cape Colony.

ENOPLOGNATHA INORNATA, sp. n. (Pl. X., fig. 2.)

Adult female length rather over 1 and $\frac{1}{2}$ line. The whole of the fore part (the maxillæ, labium, and sternum being of a darker yellow-brown hue) is a pale dull yellow-brown, and the abdomen is pale dull whitish, with a cruciform dull blackish longitudinal central stripe on the fore-half of the upper side, and a curved bordering stripe at the fore extremity, followed on each side towards the hinder end by slightly oblique similarly coloured stripes; in some examples these oblique stripes are represented by an almost isolated spot at the extremity of the stripe; in such examples the characteristic leaf-like pattern on the abdomen of the foregoing species, and others known to me, is very visible. The eyes in this species differ from those of *E. molesta* in those of the hinder row being much more nearly

equally separated from each other, the intervals being scarcely more than a diameter interval apart, and the length of the line formed by the fore-central pair of eyes being rather less than that of the hind-central pair. The genital aperture differs a little in form from that of *E. molesta*, but bears a general resemblance to it.

Examples received from "Ceres Village" and Clanwilliam Village, Cape Town.

GENUS LATRODECTUS.

LATRODECTUS CONCINNUS, sp. n. (Pl. X., fig. 4 ♂ ; Pl. X., fig. 3 ♀.)

This spider is in its markings very much like *L. geometricus*, C. L. Koch, but on comparing typical specimens (in my possession) of that species figured and described, from Minas Geraes. S. Amer.), by the late Count Keyserling, in "Spinnen Amerikas," p. 148, pl. vii. fig. 92, it appears to be quite distinct. It is very much larger, and the palpi of the male as well as the genital aperture of the female are different.

Adult male length rather over $1\frac{1}{2}$ lines; adult female from 4 to 5 lines.

(The measurements of *L. geometricus*, C. L. Koch-Keys., are ♂ $1\frac{1}{4}$ lines; ♀ from 2 to 3 lines.)

In the male the colour of the cephalothorax is yellow-brown with a rather diffused central longitudinal and lateral marginal stripes on each side of a darker hue; the legs are pale yellowish with a brown tinge at the fore-extremities of the joints.

The *abdomen* is oval, of a dark brownish grey colour, along the central line are three round-oval, white spots margined with black, the hinder spot produced backwards into a stripe which reaches the spinners; on each side of the central stripe and spots is a longitudinal row of four round, black spots, each of which is included in and close to the beginning of a long, nearly vertical lateral tapering white stripe edged with black; these oblique stripes are parallel to each other and end at the margin of the under side of the abdomen. This last is black or blackish, and has a large dicebox-shaped white central marking, and the spinners are encircled by several white spots.

The *palpi* are short, the radial joint very short, spreading on its outer side, and with a marginal row of bristly hairs; the digital joint is oval, rather large, the palpal organs have a long, closely coiled filiform black spine at their extremity, and one large separated coil running completely round the base of the digital joint and palpal

organs, one or two small prominent sinuous processes near their outer extremity issuing from behind the coiled spine.

The *eyes* of the hinder row in the male form a very nearly straight line (its curve, if any, has its convexity directed forwards), and are equally separated by an eye's diameter. The anterior row is curved, the convexity of the curve also directed forwards. The four central eyes form a large square; the interval between those of each lateral pair is less than an eye's diameter, and there is no more than half that space between the hind and fore-central pairs of eyes. This last pair are seated on a strong tubercular transverse oval prominence.

The *sternum* is dark brown, bisected longitudinally by a pale brownish yellow line.

The *female* has the cephalothorax unicolorous, the curve of the hinder row of eyes is also stronger than in the male, as also is that of the anterior row. The eyes of the central pair are nearer to each other than each is to the hind-lateral on its side, and the interval between those of each lateral pair is less than that between the fore and hind-central pairs. The abdomen is very large, subglobular-oval. The markings on it are similar to those in the male, excepting that the round form of the white spots is sometimes subangular, and the colours of the spots and stripes interchange with the ground colour, thus the white markings with black edging becomes dark, sometimes black, with white edges, and sometimes the ground is grey-white, with black edges to the white markings. The genital aperture is of characteristic form, though bearing a general resemblance to some other species of the genus.

It is to be noted that in this species, as well as in the South American examples above mentioned as typical of *L. geometricus*, the two rows of eyes are not divergent as given in the characterisation of this genus by authors, and in males this is more marked than in females, and so the interval between the eyes of each lateral pair is not greater or even as great as that between the fore- and hind-central eyes. Whether this might not justify the species in which this occurs being separated into another genus would depend on how far this difference from the usual generic character might show sufficient and uniform persistence.

Females of the above were received from Cape Town, where it appears to be very common, and males from Devil's Mountain (Cape Town Slope).*

* Since writing the above I have been able to refer to a paper lately published on the genus *Latrodectus*, P.Z.S., 1902, p. 247. The author there gives as a locality of *L. geometricus*, C. L. Koch, Cape Colony and Table Mountain. Whether

LATRODECTUS INDISTINCTUS, sp. n. (Pl. XI., fig. 1.)

Adult female length 5 to $5\frac{1}{2}$ lines.

The whole of the forepart of this spider is of a dark dull yellow-brown, the cephalothorax with some scratchy converging darker lines; the *abdomen* has a dull, sooty-brown hue with indistinct dull whitish markings on the upper side, but with no distinct pattern traceable. The under side of the abdomen is marked by two indistinct transverse whitish stripes, and between and at the base of the inferior pair of spinners is a distinct colulus, pointed-oval at its extremity. The genital aperture bears a general resemblance to that of others of this genus, but is still of a characteristic form. The hairs on the abdomen are of a short coarse stubby nature.

The *eyes* of the hind-central pair are much nearer together than to the hind-laterals. The posterior row has its curve directed forwards, while that of the anterior row is directed very slightly backwards, the interval between the eyes of each lateral pair being distinctly greater than that between the fore- and hind-central pairs; and the anterior side of the central square is rather shorter than the rest. The lateral eyes are seated on strong, prominent, and divergent tubercles.

Hab. Mamre Mission Station, Malmesbury Division, Cape Peninsula.

TEUTANA LEPIDA, sp. n. (Pl. XI., fig. 2.)

Adult male, length 2 to $3\frac{1}{2}$ lines.

Adult female, length 3 to nearly 5 lines.

Adult Male.—*Cephalothorax* elongate-oval, broadest in the middle, rather pointed at each end, slightly produced behind in a rounded cylindrical form. Colour deep rich blackish red-brown, the surface thickly and coarsely granulose, the caput is a little elevated before and the ocular area prominent, the thoracic area also is a little gibbous close behind the normal indentation. *Eyes* subequal, tolerably closely grouped together, those of the posterior row form a straight transverse line; the interval between the hind-central pair being

the spiders thus allocated are identical or not with Koch's species from South America I cannot of course say. One would hesitate to pronounce as identical, spiders from these two widely distant and distinct regions, without being able to compare types or typical examples of each. I cannot say whether the spiders referred to *l.c. supra* are or are not identical with those I have described here as a new species, but seeing that Keyserling's examples in my possession, described by him as *L. geometricus*, C. L. Koch, are South American, and are certainly distinct from the very common Cape Town species, though undoubtedly resembling it closely in pattern and variety of colouring, one may well suspect that the Cape Colony species alluded to may not be *L. geometricus*, C. L.

slightly less than that which separates each from the hind-lateral eye next to it. The anterior row is curved, the convexity of the curve directed backwards. The fore-central eyes are smaller than the fore-laterals, and the height of the clypeus which has its lower margin prominent exceeds half that of the facial space.

Legs long, 1, 4, 2, 3 furnished with fine short hairs only, colour brownish yellow, the genuæ and the extremities of the tibiæ and femora strongly suffused with dark brown.

Palpi similar to the legs in colour, moderately long; cubital and radial joints of equal length, the former bent, the latter gradually enlarged to the extremity; digital joint rather large, oval, as long as the cubital and radial together, palpal organs complex, compact, with a strong prominent somewhat twisted corneous process near their extremity on the outer side, and close by is also a pale prominent process.

Sternum similar in colour to the cephalothorax. Covered thickly with coarse granulations.

Abdomen oval; at its fore extremity is a socket with a corneous rim against which the produced hinder extremity of the cephalothorax works. The colour of the abdomen is black or black-brown, marked by white lines at the fore-end on the upper side with a large, somewhat exaggerated T-shaped marking, followed by a central quadrate figure formed by four white spots, the posterior extremity of the square being shorter than the anterior; between this and the spinners there are one or two other small white spots or markings more or less visible, and one or two lateral white vertical lines, the most conspicuous being one which runs from within the central quadrate figure nearly to the under side of the abdomen. On the under side is a central reddish and one or two other white spots. The spiracular plates are included in a large continuous, rather prominent coriaceous, or rather corneous-looking plate of a somewhat shining reddish brown colour.

In the female the colours do not appear to be so vivid nor the markings on the abdomen so distinct as those in the male; in some cases they would probably be almost obsolete. Mr. Purcell remarks that in all examples the markings (σ , φ) are white except a red patch on the under side of the abdomen. This patch is large in some cases in the female, but seems to vary much. The form of the genital aperture is distinct and characteristic.

An abundant species, known as the "knoppies spider," and its bite is dreaded by the natives.

Hab. Cape Peninsula, "under stones everywhere."

TEUTANA CONNEXA, sp. n. (Pl. XI., fig. 3.)

Adult female, length 5 lines.

Among examples of *T. lepida* there was a female of a nearly allied but quite distinct species. In general colouring and appearance the two seem much alike, but the markings on the upper side of the abdomen in the present species consist only of a curved whitish stripe around the anterior portion, followed, towards the middle, by two whitish spots in the median line, the fore one of which is the largest and of a subtriangular form. The lower part of the sides is marked by two largish suffused white patches, and the middle of the under side has a small central pale spot, which in life may possibly be red. The form of the genital aperture differs from that of *T. lepida*.

This spider appears to be nearly allied to *Teutana grossa*, C. L. Koch, of Europe.

Cape Peninsula, under stones.

FAMILY THERIDIIDÆ.

GEN. NOV. MOERO.

Cephalothorax short, broad-oval, truncate in front, a little longer than broad; lateral marginal impressions at caput slight, tolerably convex above; profile line forms an even curve, sloping downwards from its highest point to and with the ocular region.

Eyes much as in *Theridion*, but occupying the whole of the width of the caput; of moderate size; sub-equal; the central quadrangle* longer than broad; the fore-centrals have their visual axis directed pretty straight forwards; all pearly white excepting the fore-centrals; the anterior row has its curve directed forwards, the posterior backwards.

Legs short, slender, furnished with hairs and bristles; a long, slender spine on the femoral joint and two on the tibiæ of the first and second pairs; relative length 1, 4, 2, 3.

Palpi (female) devoid of terminal claw.

Maxillæ strong at base, moderately long, tapering at their extremities and greatly inclined over the labium.

Labium broader than high; somewhat subtriangular and pointed at the apex.

* In the male the anterior side appears to be slightly shorter than the posterior, while in the female it is slightly longer; and in the male the length of the quadrangle seems to be slightly shorter than in the female.

Sternum large, broader than long, very broadly truncate at its hinder extremity in an incurved line.

Abdomen large; globular and much projected over the thorax; spinners in a short circular sheath-like prominence.

MOERO QUADRIMACULATA, sp. n. (Pl. XI., fig. 4.)

Adult male, length rather less than 1 line.

Female adult, 1 line.

Adult male *Cephalothorax* orange-yellow; height of clypeus a little more than half that of the facial space.

Central eyes of posterior row divided by a diameter's interval and nearer to each other than to the hind laterals; fore-centrals on a strong prominence; those also of each of the lateral pairs are contiguous on a prominence.

Legs yellow-brown except the femora, which are orange-yellow.

Palpi (♂) short, radial and cubital joints very short; equal in length, the former a little obtusely produced in front; digital joint large, short, oblong-oval, with a strong, somewhat quadrate prominence on the outer side.

Palpal organs highly developed, complex, compact, encircled with a closely fitting black filiform spine.

Falces rather long; moderate in length and strength, and a little divergent at their extremities; some small teeth along the inner margin, one being much longer than the rest; colour orange-yellow, slightly suffused with yellow-brown.

Maxille orange-yellow. *Labium* yellow-brown, sternum orange-yellow, convex and slightly granulose or roughened, and furnished with a few prominent bristly hairs.

Abdomen pale, whitish yellow, covered very thickly with coarse erect bristly hairs, and marked towards the hinder part of the upper side with four conspicuous black spots in a large square.

The *female* resembles the male in general characters, colours, and markings; the genital aperture is of a very characteristic and distinctive form.

Hab. Platteklip Ravine, on the slopes of Table Mountain near Cape Town.

THERIDION DELICATUM, sp. n. (Pl. XI., fig. 5.)

Adult female, length $1\frac{2}{3}$ lines.

Cephalothorax pale yellowish white, with converging yellow-brown stripes, those on the thorax not reaching the margins.

Eyes in normal position, very nearly equal; all pearly white, on black spots; the convexity of the slight curve of the posterior row directed outwards, that of the anterior forwards. Those of the posterior row equally separated by more than a diameter; the central quadrangle forms a square; a few longish bristles on the caput directed forwards; of these the two longest are in a transverse line at the middle of the central quadrangle. The height of the clypeus is two-thirds of the facial space.

Legs moderately long, 1, 4, 2, 3 slender, furnished with hairs and slender bristles, a very few almost spiniform; colour like that of the cephalothorax, the femora and tibiæ of the fourth pair suffused with dull brown, as also less strongly those of the other legs.

Falces moderately long and strong, normal; these with the *Maxillæ*, *Labium*, and *Sternum* (which last is broadly and somewhat roundly truncated at its hinder extremity) are pale yellow.

Abdomen large, almost globular; projecting much over the cephalothorax; of a dull orange-yellow colour, marked faintly with a white longitudinal central line from which two or three slightly oblique lateral ones issue on each side; the sides also have two or three similar oblique lines, and one encircles the fore extremity on the upper side. The genital aperture is of very characteristic form. The lines on the abdomen are formed by minute white spots. It is possible that other examples, when found, will exhibit some modification in colours and markings. In that case the form of the genital aperture will become all important.

Hab. Constantia Flats, Cape Peninsula.

THERIDION DEDUX, sp. n. (Pl. XII., fig. 1.)

Adult male, length $1\frac{1}{3}$ lines.

Adult female, $1\frac{1}{2}$ to $1\frac{3}{4}$ lines.

Cephalothorax pale yellow, marked rather diffusely and indistinctly with yellow-brown along the converging lines of the normal indentations and the fore part of the caput. The height of the clypeus is nearly two-thirds of the facial space.

Eyes normal; sub-equal, fore-centrals smallest; all pearly-greyish white; the slight curve of the posterior row directed backwards, that of the anterior row forwards. The two rows are very nearly of equal length, anterior slightly shortest. The interval between the hind-centrals a little larger than that between each and the hind-lateral next to it. The fore-centrals are smallest. The central quadrangle is a square with its fore side rather the shortest. The prominence

bearing the fore-central eyes is moderately strong, those of the lateral pairs are strong.

Legs tolerably long, 1, 4, 2, 3 furnished with hairs and bristles, of which there is a patch, more thickly furnished than elsewhere, inside the fore-extremity of the femora of the third pair; colour dull yellow-brown.

Palpi short; similar in colour to the cephalothorax; cubital and radial joints very short; the former strongly claviform and furnished with several long, strong bristles, the latter shortest and produced obtusely at its extremity on the outer side and furnished with long bristles. Digital joint large, oval; palpal organs well developed, but simple, divided transversely into two large lobes, anterior and posterior, with a short, pointed spiny process beneath and from within their fore-extremity, but not projecting beyond the point of the digital joint.

Falces moderate in length and strength; colour like that of the cephalothorax, tinged with yellow-brown.

Maxillæ and *labium* yellow, slightly suffused with pale yellow-brown.

Sternum convex, yellow, broadly and squarely truncate at the hinder extremity, and furnished with a few long bristly hairs.

Abdomen oval, pale whitish, thinly covered with long bristles. There was no pattern visible above, but two or three very indistinct oblique dusky lines on the sides.

The *female* has the legs and palpi of a darker dusky yellow-brown than the male. The abdomen is large, globular, and of a dull mouse-brown colour with some indistinct oblique yellow-brownish lines. The genital aperture and process are large, prominent, and very distinctively characteristic. Probably a series of examples would show some variation in colour, and perhaps some other markings on the abdomen in both sexes.

Hab. Durban, Natal, South Africa.

Theridion Purcellii, sp. n. (Pl. XII., fig. 2.)

Adult male, length $1\frac{1}{2}$ lines.

Adult female, very nearly 2 lines.

Excepting its much larger size, this pretty species is in general appearance, colours, and markings, very like the English species *Theridion familiare* Cambr. The structure of the palpi is, however, very different.

Adult male.—*Cephalothorax* yellow, with a thin, central longitudinal brown line, sometimes enlarged behind the eyes.

Eyes small, subequal, those of the posterior row nearly equally separated, the centrals rather nearer to each other than to the laterals, the curve of the row very slight, and its convexity directed backwards. The central quadrangle is nearly square, its fore-side a little the longest; the height of the clypeus exceeds half that of the facial space. The fore-central eyes are largest, and seated on a prominence. A few spiniform tapering bristles on the caput are directed forwards, the longest being exactly in the middle of the central quadrangle of eyes.

Legs moderately long, 1, 4, 2, 3 furnished with longish bristly hairs of varied strength. Colour yellow, faintly annulated with brownish.

Palpi short, radial joint excessively so, similar in colour to the legs; cubital joint with several long curved bristles in front; digital joint very large, oblong-oval, and the palpal organs rather simple, with an obtuse prominence at their extremity on the outer side—a strong, black, tapering spine encircles the hinder portion, and another is also curved in a circular form beneath the fore extremity.

Maxillæ, labium, and sternum yellow, tinged with brown.

Abdomen subglobular, furnished thinly with bristly hairs. Ground colour dull luteous yellowish, with a longitudinal central strongly and sharply dentated band, obtuse in front, enlarging to near the middle and thence tapering to the spinners, this band is more or less marked with white spots, and the dentations are formed on each side by a distinct white lateral line more or less strongly margined outside by a black stripe; the sides are marked obliquely, but not very regularly, with black and white. The under side has the fore-part (including the plates of the spiracles) prominent, of a deep black-brown, with a central white patch, and the spinners are on a large blackish area; nearly in front of the spinners is a conspicuous long transverse curved fold in the epidermis, in which probably are concealed entrances to spiracular organs.

The *female* resembles the male in colour and markings, but the abdomen is more globular, and its central dentated band better and more sharply defined, though with less black on its edges. A series of examples would, however, probably show variations in these respects.

Hab. Salt River Flats, near Cape Town.

LINYPHIA, Latr.

LINYPHIA INTERPOLIS, sp. n. (Pl. XII., fig. 3.)

Adult male, length 2 lines.

Adult female, length $1\frac{1}{2}$ to rather over 2 lines.

Male.—*Cephalothorax* rather narrow, oblong-oval, rounded in front, lateral marginal construction at the caput slight. Profile line very slightly curved, with a slight dip at the hinder margin of caput. Clypeus half the height of the facial space, and its lower margin prominent. Colour, yellow-brown.

Eyes on tubercular prominences; those of the posterior row are about equally separated, and form a curved line whose convexity is directed forwards. The two centrals of this row are apparently largest of the eight, and are apparently one diameter and a half from each other. The anterior row, slightly shortest, is very nearly straight, its convexity, if any, directed backwards, and its eyes are of nearly equal size, separated by a diameter's interval, or slightly over, from each other, but by more than double that interval from the fore-laterals. The four central eyes form a square, whose anterior side is the shortest.

Legs long, slender, 1, 4, 2, 3 yellow-brown, rather paler than the cephalothorax and tinged with greenish olive. The femora in one example striped longitudinally, but not conspicuously, with dark brown. Spines normal.

Falces long, moderately strong, divergent, directed backwards; similar in colour to the cephalothorax.

Palpi short, similar to the legs in colour, cubital and radial joints short, the former shortest, both clavate; the digital joint rather large, long-oval; palpal organs complex, with a long, slender, filiform spine on their outer side, forming a very large, prominent circle.

Abdomen elongate, strongly compressed transversely past the middle on the upper side and obtuse at the hinder extremity. Colour black, with a conspicuous white spot on each side close to the fore extremity.

The *female* resembles the male in general colours and markings, but the abdomen has a lateral marginal line of white lines and spots, and others along the median line, but probably often either obsolete or variable. The abdomen is also wanting in the constriction characteristic of the male. The genital aperture is small, inconspicuous, but characteristic.

This spider is nearly allied to *Linyphia pusilla*, Sund. (of Europe)

resembling it closely in the long spine connected with the palpal organs.

Hab. Ramskop (Clanwilliam Division), Cape Colony.

SUB-FAMILY ERIGONINI.

GEN. LUCRINUS.

Cephalothorax longer than broad, obtuse before, broad and somewhat excavate behind in profile line, considerably elevated at the junction of caput and thorax, lateral marginal impressions at the caput well marked; height of clypeus rather exceeds half the facial space.

Eyes rather closely grouped together, those of the posterior row are in a straight transverse line, equally separated. The convexity of the curve of the anterior line directed forwards. The fore-centrals are much smallest, the rest subequal, the fore-laterals perhaps the largest. The central quadrangle nearly a square, but narrowest in front.

Legs moderately long, slender, subequal in length, 4, 1, 2, 3 furnished with hairs only.

Falces normal.

Maxillæ short, and inclined towards the labium.

Labium apparently very short, broader than high, and rounded at the apex.

Sternum about equal in length and breadth, convex, rather round, obtuse at the posterior extremity.

LUCRINUS PUTUS, sp. n. (Pl. XII., fig. 4.)

Adult female, length three-fourths of a line.

Cephalothorax, *falces*, *maxillæ*, *labium*, and *sternum* dark yellow-brown; legs and palpi paler; *abdomen* black.

This little spider appears to be nearly allied to *Gongylidiellum* and other European forms, but I cannot fit it in satisfactorily to any of our genera, and have therefore, though with some hesitation, based a new genus upon it.

Hab. Village of Clanwilliam, Cape Colony.

LIST OF SPIDERS DESCRIBED.

FAMILY THERAPHOSIDÆ.

CÆDMON THORACICA.....	p. 144.	Pl. IX., fig. 1
„ AFFINIS	p. 145.	„ „ 2
„ CONGENER	p. 146.	„ „ 3
„ DUBIA	p. 147.	„ „ 4

FAMILY ZODARIIDÆ.

DIORES SIMONII	p. 147.	„ „ 5
„ COGNATA	p. 149.	„ „ 6

FAMILY THERIDIIDÆ.

ENOPLOGNATHA MOLESTA	p. 149.	Pl. X., fig. 1
„ INORNATA	p. 151.	„ „ 2
LATRODECTUS CONCINNUS	p. 152.	„ „ 3, 4
„ INDISTINCTUS	p. 154.	Pl. XI., fig. 1
TEUTANA LEPIDA	p. 154.	„ „ 2
„ CONNEXA	p. 156.	„ „ 3
MOERO QUADRIMACULATA	p. 157.	„ „ 4
THERIDION DELICATUM	p. 157.	„ „ 5
„ DEDUX	p. 158.	Pl. XII., fig. 1
„ PURCELLII	p. 159.	„ „ 2
LINYPHIA INTERPOLIS	p. 161.	„ „ 3
LUCRINUS PUTUS	p. 162.	„ „ 4

EXPLANATION OF PLATES.

PLATE IX.

FIG.

1. *Cædmon thoracica*, 1a, spider in profile; 1b, eyes from above and behind; 1c and 1d, palpus in two positions.
2. *Cædmon affinis*, spider in profile; 2a, eyes from above and behind; 2b, 2c, palpus in two positions.
3. *Cædmon congener*, spider in profile; 3a, eyes from above and behind; 3b, 3c, palpus in two positions.
4. *Cædmon dubia*, 4a, spider in profile; 4b, eyes from above and behind.
5. *Diore Simonii*, 5a, spider in profile; 5b, eyes from above and behind; 5c, 5d, palpus in two positions.
6. *Diore cognata*, eyes of spider from above and behind; 6a, 6b, 6c, palpus in three positions.

PLATE X.

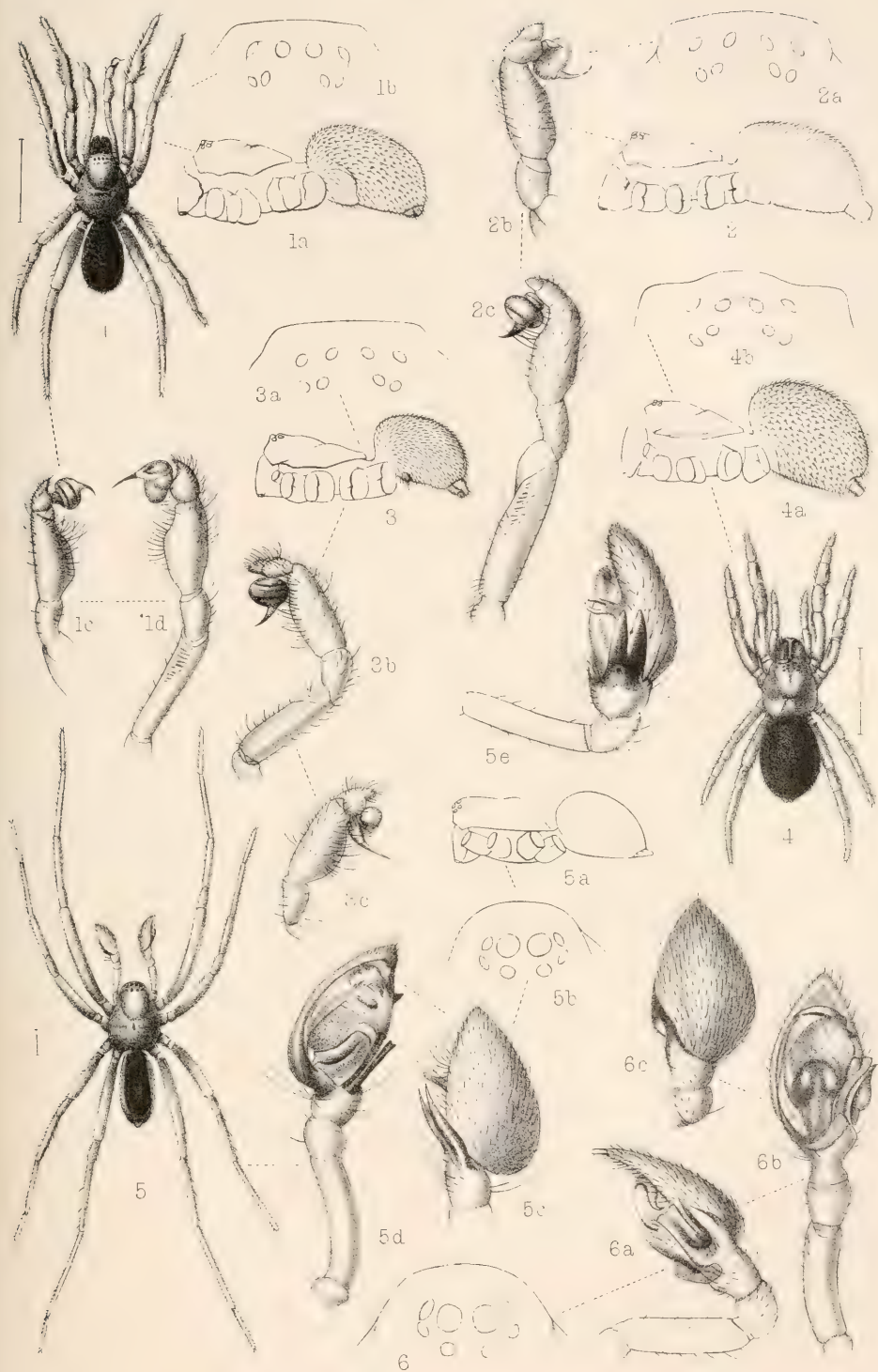
1. *Enoplognatha molesta*, 1a, spider in profile; 1b, eyes from above and behind; 1c, one of the falces in profile; 1d, palpus; 1e, portion of palpus showing palpal organs.
2. *Enoplognatha inornata*, 2a, profile; 2b, eyes from above and behind; 2c, genital aperture.
3. *Latrodectus concinnus* ♀, 3a, profile; 3b, underside of abdomen; 3c, eyes from above and behind.
4. *Latrodectus concinnus* ♂, 4a, profile; 4b, eyes from above and behind; 4c, 4d, palpus in two positions.

PLATE XI.

1. *Latrodectus indistinctus*, 1a, profile; 1b, eyes from above and behind; 1c, genital aperture.
2. *Teutana lepida* ♂, 2a, profile; 2b, eyes from above and behind; 2c, 2d, palpus in two positions.
3. *Teutana connexa*, 3a, eyes from above and behind; 3b, genital aperture.
4. *Moero quadrimaculata* ♂, 4a, profile; 4b, eyes from above and behind; 4c, maxillæ, labium, and sternum; 4d, 4e, palpus in two positions; 4f, genital aperture of ♀.
5. *Theridion delicatum*, 5a, profile; 5b, eyes from above and behind; 5c, genital aperture.

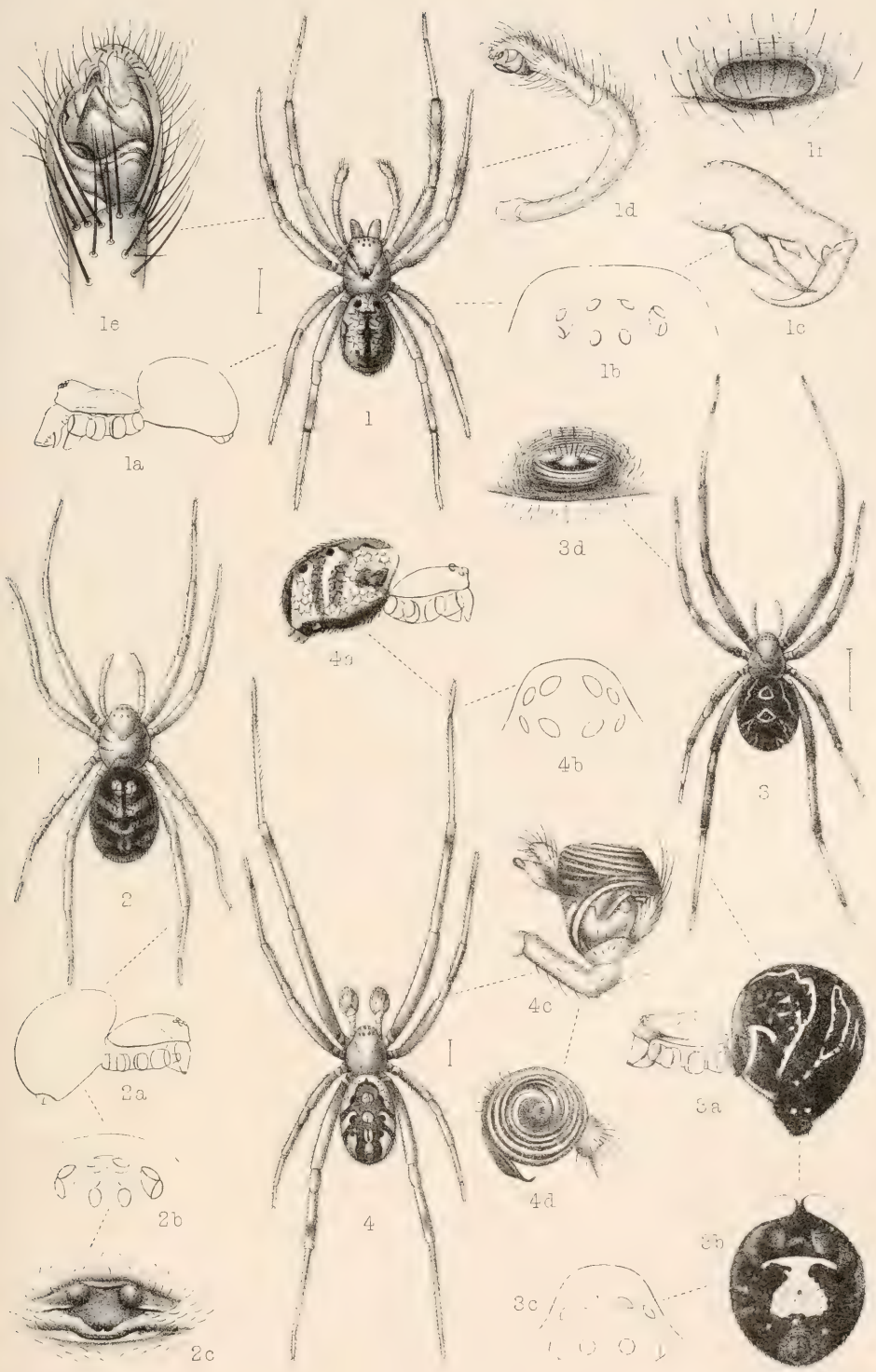
PLATE XII.

1. *Theridion dedux* ♂, 1*a*, profile; 1*b*, eyes from above and behind; 1*c*, 1*d*, palpus in two positions; 1*e*, genital aperture ♀.
2. *Theridion Purcellii* ♂, 2*a*, profile; 2*b*, eyes from above and behind; 2*c*, 2*d*, palpus in two positions; 2*e*, genital aperture ♀.
3. *Linyphia interpolis* ♂, 3*a*, profile; 3*b*, eyes from above and behind; 3*c*, 3*d*, palpus in two positions; 3*e*, abdomen ♀, upper side.
4. *Lucrinus putus*, cephalo-thorax, 4*a*, profile; 4*b*, eyes from above and behind; 4*c*, hinder part of sternum; 4*d*, genital aperture.



A. T. Hollick del. et lith.

West, Newman imp.

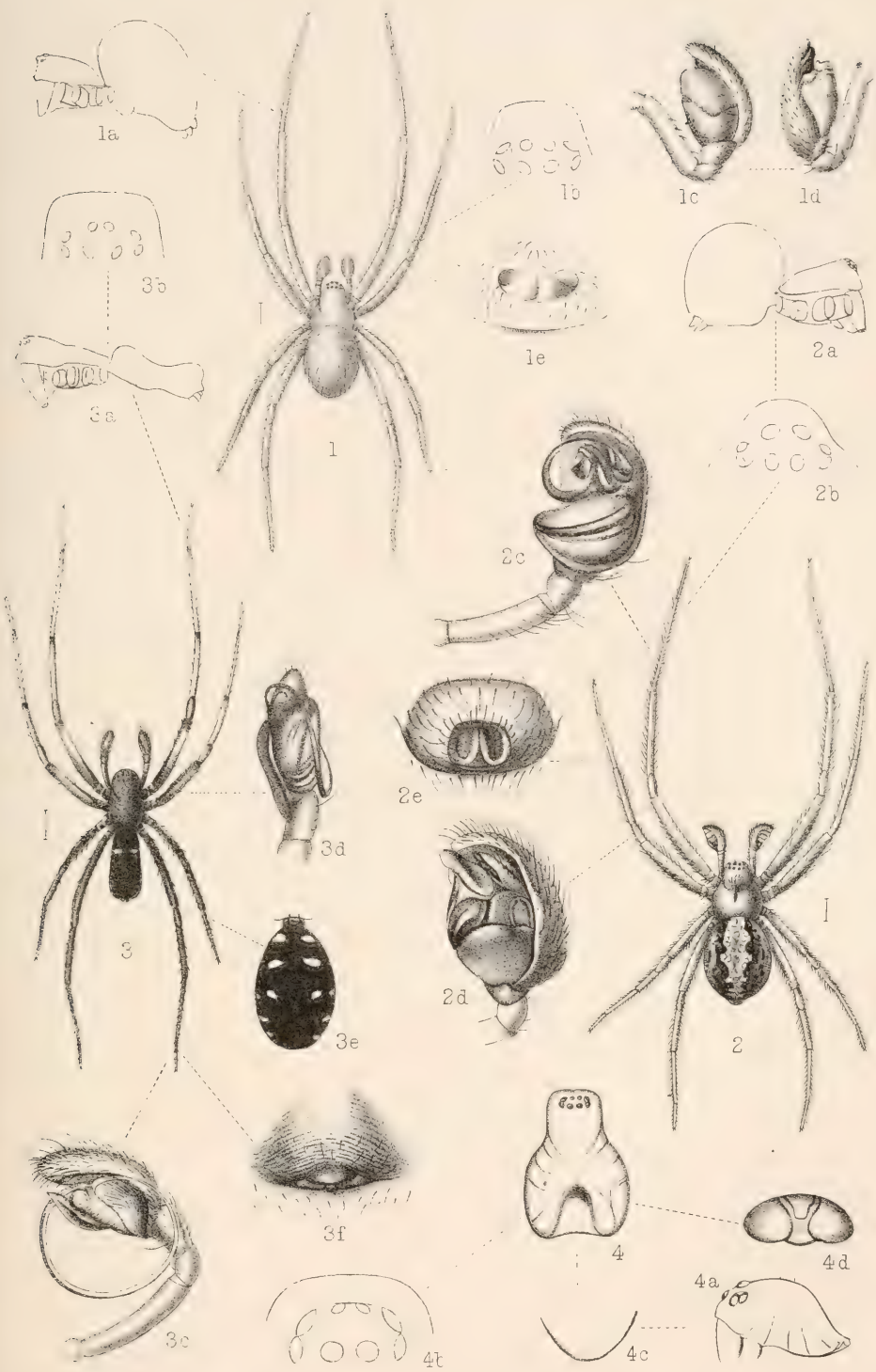


A.T.Hollick del.et lith.

West,Newman imp

NEW SOUTH AFRICAN SPIDERS.





VII.—*Sixth Contribution to the South African Coleopterous Fauna*
By L. PÉRINGUEY, *Assistant Director*.*

DESCRIPTION OF NEW SPECIES OF COLEOPTERA IN THE COLLECTION
OF THE SOUTH AFRICAN MUSEUM. (Plate XIII.)

FAMILY CICINDELIDÆ.

GEN. TETRACHA, Hope.

TETRACHA (STYPHLODERMA) DODSI, n. sp.

Bronze-black on the upper side; elytra opaque and having in both sexes two sub-basal and two supra-apical, flavescent, elongated patches; the seven apical joints of the antennæ are sub-flavescent, the others fuscous, palpi flavescent, labrum with a flavous basal margin in the male, entirely black in the female; anterior and intermediate femora flavescent, but fuscous on one side only, hind ones entirely fuscous, tibiæ flavescent but infusate on one side; head broad, impunctate, impressed on each side of the eyes, the impression longitudinally plicate; prothorax with the normally raised, impunctate central part of the disk, and the anterior and posterior constricted parts closely and somewhat strongly granulose, the lateral keel is prolonged in both sexes as far as the basal margin and nearly coalesces with it without being either sharp or dentate; elytra very elongato-ovate, hardly wider at a very short distance from the apex than they are at the base in the male, less acuminate laterally behind in the female, and only very slightly sinuate laterally at some distance from the shoulders, not convex, yet not depressed in the male, slightly convex in the female, covered with appressed, triangular granules separated from each other by an interval equal

* The first four Contributions were published in the Transactions of the South African Philosophical Society, 1885-1892; the fifth in the Annals of the South African Museum, vol. i. p. 240.

to their greater width; they are opaque, nearly black, but metallic along the base, and dark blue for a short distance along the outer margin, the epipleural fold is often flavescent; the first elongated flavescent dorsal patch is about median, and nearly equi-distant from the base and the median part, the second is slanting and supra-marginal, and set closer to the apex than to the median part; abdomen black; pectus with a faint greenish sheen.

Length 21–23 mm.; width 7–9 mm.

Although agreeing with Dr. W. Horn that *T. (Styph.) sub-opacum*, Fairm., is at most a sub-species of *T. asperatum*, Waterh., if not the same species, I do not consider *T. dodsii* to be a sub-species of the latter; it is smaller than any of the two species mentioned, the elytra of the male are more acuminate towards the apex, and although not convex they are certainly not depressed, the female is also more convex, and more regularly attenuate behind, and the sculpture of both is very different from that of *T. asperatum* and *T. sub-opacum*, the granules being much smaller and narrower, with their basal part separated from each other by a wide interval, whereas in the two above-named species they almost coalesce with each other at their base. I have seen two male and three female examples of this species.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

FAMILY CARABIDÆ.

TRIBE HEXAGONINI.

GEN. HEXAGONIA, Kirb.

HEXAGONIA VENUSTA, n. sp.

Black, with the elytra for two-thirds of the length, the femora with the exception of the apical part, the metasternum and the two or three basal joints of the abdomen testaceous-red; head very deeply and closely punctate all over and without any smooth area; prothorax of the normal shape, but a little less broadly cordiform in the anterior part than in the other South African species, deeply grooved longitudinally, and deeply and equally punctate except along the outer margins, which are slightly plicate; elytra depressed, deeply punctato-striate, with the intervals not quite plane and tectiform on

the sides, the posterior black part extends from side to side for about one-third of the length, and its inner margin is arcuate on each side.

Length $10\frac{1}{2}$ mm.; width 3 mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

HEXAGONIA UMTALINA, n. sp.

Head and prothorax black, but oftener fuscous or fuscous-brown, mandibles and basal joints of antennæ rufescent, legs brick-red, not infusate at the knees; elytra brick-red with the posterior part black, the black patch beginning in the centre at about four-fifths of the length, but prolonged along the sides to about two-thirds; abdomen and metasternum brick-red; head finely and very closely punctate all over; prothorax strongly amplified in the anterior part, deeply grooved longitudinally, closely punctate all over the disk except along the outer margin, where there is a fairly wide impunctate band; elytra as in the preceding species, but with the dorsal intervals a little more plane, the apical black part is nearly as broad as in *H. venusta*, and also reaches from side to side, but it varies in length. It differs from *H. terminalis*, Gemm., in the greater ampliation of the prothorax and the finer and closer punctulation of the discoidal part, and also of the head.

Length $8\frac{1}{2}$ –10 mm.; width $2\frac{1}{2}$ –3 mm.

I have seen an example of this species in which the prothorax is red.

Hab. Southern Rhodesia (Umtali). A. Bodong.

HEXAGONIA ANGUSTULA, n. sp.

Head and prothorax testaceous-red, the former darker than the latter, elytra and legs testaceous-yellow, somewhat flavescent; head more elongated behind the eyes than in the other South African species, deeply punctate all over, the punctures fairly large and not very closely set; prothorax narrow, long in proportion to its width, only very slightly amplified laterally a little in front of the median part, and gradually narrowed towards the base, grooved longitudinally in the median part of the disk, which is covered with moderately closely set, deep punctures; elytra narrow, with the shoulders strongly sloping, deeply punctato-striate and with the dorsal intervals plane.

Length 8 mm.; width $1\frac{1}{5}$ –2 mm.

This species is easily distinguished by its narrow width; the

prothorax is less amplified in front than in the other species known to me.

Hab. Southern Rhodesia (Umtali). A. Bodong.

TRIBE HELLUONINI.

GEN. MACROCHILUS, Hope.

MACROCHILUS LONGICOLLIS, n. sp.

Brick-red; elytra fuscous black, and having on each side a longitudinal humeral brick-red band reaching from the base to a short distance from the median part, and extending from the second stria to near the edge of the outer margin, and a sub-transverse, comparatively narrow one of the same colour at the apex; antennæ with the six apical joints dilated, the upper and lower surfaces are briefly pubescent; the head and prothorax are sub-foveolate-punctate, and the punctures not closely set; the prothorax is unusually narrow and elongated, being one-third longer than wide at its broadest part which is at the apex, only slightly sinuate in the posterior part, the sides of the base are strongly slanting towards the outer angle; elytra parallel, deeply striate, each interval, except the supra-marginal one, with one row of deep foveate punctures; legs pubescent.

Allied to *M. proximus*, which it greatly resembles in colour and sculpture, but easily recognised by the narrow, elongated prothorax.

Length 12 mm.; width $3\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

MACROCHILUS SPECTANDUS, n. sp.

Testaceous-red, with the 2-4 antennal joints and the abdomen infusate, the elytra are black and have on each side a sub-quadrate yellowish patch situated slightly before the median part and extending from the third to the sixth interval, and an apical smaller one extending from the first to the fourth stria and abutting nearly on the apical outer margin; it is clothed above and below and also on the legs with a short flavescent pubescence; the head and prothorax are closely foveolato-punctate, the prothorax is as broad as long, cordate, with the outer sides of the base incised transversely, thus making the median part appear as if slightly produced behind; the elytra are parallel, deeply striate, with the intervals carinate in the anterior part, convex in the posterior, and having each two series of foveolate punctures. Allied to *M. biplagiatus*, Boh., but the antennæ

are longer, the prothorax more closely foveolato-punctate, the juxta-median yellowish patches on the elytra are smaller, and there is an apical one which is not at all indicated in *M. biplagiatus*.

Length 19 mm. ; width $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

MACROCHILUS VARIANS, n. sp.

Head and elytra, abdomen and metasternum black, shiny, labrum, prothorax, and legs testaceous-red ; antennæ, with the exception of the second and third basal joints, which are deeply infuscate, brick-red ; head very broad, covered with closely set, sub-contiguous round punctures ; prothorax very short, broader than long, truncate in front, rounded and amplified laterally, strongly constricted and sinuated above the hind angle which is very sharp, median part of the base plainly produced behind, covered with closely set foveate punctures, clothed like the head with a very short, greyish pubescence, and having on each side of the posterior part a deep impression which makes the outer angle appear as if it were reflexed, it is not as wide as the head and eyes ; elytra nearly parallel, but slightly amplified laterally towards the posterior part, narrowly striate, with the striæ punctate and the intervals convex in the anterior part, plane in the posterior, and covered with numerous very closely set, fine yet deep punctures.

I have seen two examples only of this species ; in the one the elytra are concolorous, in the other there is a yellowish-red band beginning near the base and extending on the fourth and fifth intervals to a short distance from the median part of the disk. This species is easily identified by the very short prothorax, which is strongly constricted behind, but not, however, quite as much incised there as in *M. viduatus*, Péring.

Length $8\frac{1}{2}$ –10 mm. ; width 3 – $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

TRIBE BRACHININI.

GEN. BRACHINUS, Weber.

BRACHINUS MACTUS, n. sp.

Head, prothorax, pectus, and legs testaceous-yellow, antennæ black, with the basal joint and part of the second yellowish ; elytra black, with three dorsal yellowish patches and the outer margin

yellow, abdomen fuscous-black; head and prothorax of the normal shape and sculpture, the latter is somewhat elongated; the elytra are ob-ovate with the shoulders much rounded and sloping, shagreened, very briefly pubescent, plainly costulate, there is a yellowish triangular patch in the scutellary region, an elongated patch or band beginning at a short distance from the base and running on the fourth and sixth intervals, including the costa, and not reaching quite the median part, a quadrate or elongato-quadrate one extending on the first, second, and third costules, and a similar one set on the outer angle of the posterior edge and coalescing with the narrow yellowish margin, which is slightly dilated; towards the median part these markings are not always very plain, but they are never completely obliterated.

It is a near ally of *B. obliterus*, Péring., in which, however, the elytra are more quadrate at the base owing to the shoulders not being strongly sloping, and the prothorax shorter.

Length $5\frac{1}{2}$ – $7\frac{1}{2}$ mm.; width $2\frac{1}{2}$ – $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

BRACHINUS UMWOTIANUS, n. sp.

Black, opaque; antennæ fuscous-black, joints thick; femora yellowish-red but infusate at the knees; head covered with deep punctures more closely set on the posterior than on the anterior part, and clothed with a long, very dense, erect, black pubescence; prothorax elongated, sinuated laterally from the third part of the length, and with the anterior not very cordiform, deeply grooved longitudinally in the centre, covered with very closely set, nearly contiguous deep punctures, and clothed with the same erect black pubescence as the head; elytra with the humeral part strongly rounded, and therefore very little prominent, gradually amplified thence to the posterior part, very plainly costate, the costæ tectiform and sharp, the intervals are shagreened and both intervals and costæ are clothed with a sub-erect, very dense fuscous pubescence, the epipleural fold is punctate, the punctures setigerous; under side and legs closely punctate and pubescent.

Length 11 mm.; width 5 mm.

Allied to *B. tibialis*, Péring., but the humeral angles are not quite as obliterated, the antennal joints are thicker, the punctures of the head and prothorax are deeper and more closely set, and the pubescence there is longer and denser.

Hab. Natal (Umvoti). A. Fry.

GEN. STYPHROMERUS, Chaud.

STYPHROMERUS PLAUSIBILIS, n. sp.

Testaceous-red, abdomen black ; elytra parallel, black with a basal, narrow, elongated flavescent patch extending from the sixth interval to the outer margin and rounding the shoulder, and a supra-apical, sub-quadrangular patch of the same colour extending from the fourth to the seventh intervals and situated at a short distance from the apex, the outer margin has a narrow yellowish-red band continued as a mere line along the apical part and along the suture to about the middle, they are plainly costate, finely shagreened, and clothed with a sub-flavescent appressed pubescence.

Length $9\frac{1}{4}$ mm ; width $3\frac{1}{2}$ mm.

Easily distinguished from the other species by the parallel elytra, the much more raised and tectiform elytral costæ, and the narrow elytral yellow markings.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

TRIBE LEBIINI.

GEN. CALLIDA, Dej.

CALLIDA NIGRIPES, n. sp.

Head, prothorax, and the two basal joints of the elytra darkish red ; elytra greenish-blue, pygidium fuscous ; legs, abdomen, and meta- and mesosternum black ; head impunctate ; prothorax cordate, as broad at its widest part as long, moderately narrow in the posterior part, and not strongly sinuate there, there are no traces of punctures, and only a very faint transverse plication laterally ; elytra punctato-striate, with the intervals plane on the dorsal part, somewhat carinate laterally, and having an irregular series of very faint punctures.

This species is easily distinguished from all the other South African species by the colouration of the legs and under side, as well as by the impunctate prothorax.

Length $9-9\frac{1}{2}$ mm. ; width 3 mm.

Hab. Natal, Zululand. Dr. H. Martin.

CALLIDA FERVIDA, n. sp.

Head black, with the neck red ; prothorax and whole under side red ; palpi infusate, antennæ black, with the three basal joints and

the basal part of the fourth reddish; legs reddish with the knees black or dark fuscous; elytra green with a bluish tinge; head closely punctate except on a small post-median smooth area, prothorax a little longer than broad, moderately narrowed laterally, and not strongly sinuate there, somewhat closely punctate, the punctures on the side are deeper and more rugose than on the disk; elytra punctato-striate with the intervals raised and strongly tectiform on the sides, the punctures very plain; pygidium red.

Allied to *C. affinis*. The shape and sculpture of the head and prothorax are similar in the two species, but in *C. affinis* the head is not infusate, and the intervals of the elytra are more plane.

Length $10\frac{1}{2}$ – $10\frac{3}{4}$ mm.; width $3\frac{1}{2}$ – $3\frac{3}{4}$ mm.

Hab. Natal (Verulam). C. N. Barker; Dr. H. Martin.

GEN. HYSTRICHOPUS, Bohem.

HYSTRICHOPUS VELOX, n. sp.

Black, elytra fuscous, opaque, femora, with the exception of the knees, flavescent; head impunctate; prothorax elongated, one-fifth longer than broad, widest at a short distance from the apex and very slightly rounded there, straight thence to the base, which is narrower than the apex by one-fifth, the outer margins are plainly raised, and the discoidal surface very faintly plicate transversely; elytra gradually amplified from the base to a short distance from the apex, where they are twice as wide as at the base, plane, costate, the costæ convex, highly raised but not sharply tectiform, the fine punctures on the third costa very plain; legs long, slender.

Length $17\frac{1}{2}$ mm.; width 6 mm.

Allied to *H. gracilis*, Péring., the elytra of which, however, are much more parallel and much narrower, but the shape of the prothorax is nearly the same, although slightly wider at a short distance from the apex.

Hab. Cape Colony (Umtata). Rev. F. C. Kolbe.

GEN. METAXYMORPHUS, Chaud.

METAXYMORPHUS ROBUSTUS, n. sp.

Light testaceous, with the greatest part of the disk of the prothorax and the median dorsal part infusate, glabrous, shining; head and under side black; antennal joints not quite as slender as in the other species of the genus; labrum sub-rufescent, head impunctate;

prothorax as long as broad, anterior part arcuate, sides slightly rounded laterally, narrower across the base than across the apex and with the margins reflexed, deeply sulcate longitudinally in the middle and having a diagonal sulcus reaching from the base to about the median part; elytra oblongo-ovate with the base strongly bisinuate and the angles sharp, finely yet deeply striate, striae and intervals impunctate, third stria, however, with a deep puncture in the anterior and another in the posterior parts, depressed on the dorsal part as far as the fifth stria and with the sixth interval slightly raised, especially in the anterior part.

A distinct species.

Length 7 mm.; width $2\frac{1}{2}$ mm.

Hab. Natal (Durban). C. N. Barker.

GEN. COPTOPTERA, Chaud.

COPTOPTERA INDOTATA, n. sp.

Head and prothorax very pale testaceous, elytra almost straw colour; head very little narrowed behind the eyes, closely strigillate along them but having a median longitudinal smooth space; prothorax with the sides straight, narrower at the base than across the anterior part, faintly plicate transversely and with the median longitudinal sulcus quite plain; elytra quite parallel, concolorous, narrowly yet deeply striate, striae filled with small, very closely set punctures, intervals raised and somewhat tectiform; antennae not very elongated.

This species is as parallel as *C. tenella*, Boh., but it is longer, the elytra are more highly costulate, and the strigillate sides of the frontal part distinguish it from all the other South African species.

Length 6 mm.; width $1\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

GEN. KLEPSIPHRUS, Péring.

KLEPSIPHRUS ANGUSTICOLLIS, n. sp.

Head and prothorax piceous-brown, very shining, elytra very dark brown with the outer margins and the legs much lighter, antennae, labrum, and palpi rusty red; head very elongated, shiny and impunctate; prothorax very narrow, twice as long as broad, quite parallel, very faintly strigillate transversely, very shiny and with the median, narrow longitudinal sulcus quite plain; elytra twice as

broad as the very narrow prothorax, and with the humeral angles rounded off, parallel from a short distance from the humeral part to about the same distance from the apical, plane with the margins strongly reflexed, narrowly yet deeply striate, the striæ impunctate, yet having faint and remote transverse impressions, intervals raised, somewhat sharp in the anterior part.

Easily distinguished from the other two South African species by the very narrow prothorax and sub-parallel elytra.

Length $7\frac{1}{2}$ mm.; width 2 mm.

Hab. Natal (Zululand). Dr. H. Martin.

GEN. XENITENUS, Péring.

XENITENUS NATALICUS, n. sp.

Head, prothorax, and pectus testaceous-red, elytra black, antennæ with the three basal joints reddish, the others fulvescent, palpi reddish; head impunctate; prothorax as broad as long, straight laterally, slightly narrower at the base than across the apex, and with the outer margins slightly reflexed, very faintly plicate; elytra with the shoulders moderately rounded, sub-parallel, strongly sinuate behind and with the inner apical part being accordingly sharper, they are plainly striate, the striæ are impunctate, and the intervals are moderately convex; legs piceous-brown or red, abdomen black.

Not unlike in general appearance *X. dilucidus*, Péring., but the prothorax is more parallel, and as the margins are reflexed, there seems to be a somewhat broad lateral sulcus; the elytral apical margin in *X. dilucidus* is not deeply sinuate, nor the inner angular part acuminate as in *X. natalicus*.

Length $6\frac{1}{2}$ mm.; width $2\frac{1}{4}$ mm.

Hab. Natal. Dr. H. Martin.

GEN. LIONYCHUS, Wism.

LIONYCHUS LAETULUS, n. sp.

Bronze black, with a brassy sheen on the upper side, antennæ black with the three basal joints rufescent; elytra with a very broad yellowish-white band on each side of the dorsal part; head broad, impunctate; prothorax of the normal shape, very shiny and metallic; elytra sub-elongate-quadrate with the humeral and posterior parts equally rounded, black but narrowly fuscous alongside the

whitish-yellow dorsal bands which are each about one-third of the width of each elytron from near the apex to three-fourths of the length, and invade there the basal and anterior marginal parts, but not the sutural; legs and underside black.

Very distinct from the other two South African species.

Length 3 mm.; width $1\frac{1}{4}$ mm.

Hab. Cape Colony (Willowmore). Dr. H. Brauns.

GEN. PHLEOZETUS, Peyr.

PHLEOZETUS CRIBRICOLLIS, n. sp.

Testaceous-red all over, elytra occasionally paler than the prothorax; head plainly but not closely punctulate; prothorax broader than long, rounded laterally in the anterior part, sinuate above the sharp, reflexed basal angle, plainly impressed longitudinally and having a narrow line in the median impression, covered with deep and moderately closely set punctures; elytra oblong, deeply striate, with the intervals raised and tectiform.

Not unlike *P. umbraculatus*, Boh., but much shorter, and concolorous. Easily recognised from the other South African species by the deeply punctured prothorax.

Length $4\frac{3}{4}$ – $5\frac{1}{2}$ mm.; width $2\frac{1}{2}$ – $2\frac{1}{3}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

PHLEOZETUS UMTALINUS, n. sp.

Testaceous, with the head and the discoidal part of the prothorax darker; antennæ somewhat rusty red with the three basal joints paler; elytra with a bi-sinuate, fuscous, broad posterior patch; head somewhat punctato-plicate, coriaceous; prothorax rounded laterally in the anterior part, and straight from the median part to the sharp basal angle, the surface is strongly wrinkly, coriaceous; elytra four times as long as the prothorax, oblong, punctato-striate, with the intervals tectiform, the infusate patch extends from the inner side of the outer margin to the other, and varies in shape from a broadly truncate cone to a triangle the point of which reaches about to the median part, while the base is straight and situated at a short distance from the apex.

This species closely resembles *P. umbraculatus*, Boh., and might easily be mistaken for it. The difference between the two is in the shape of the lateral posterior part of the prothorax, which in *P.*

umbraculatus is very plainly sinuate, with the angle projecting accordingly, whereas in the present species, of which I have seen twelve examples, there is no sinuation whatever.

Length $6\frac{1}{2}$ – $7\frac{1}{4}$ mm.; width 3 – $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

GEN. LEBIA, Latr.

LEBIA PHANTASMA, n. sp.

Head, prothorax, and antennæ testaceous-red, elytra testaceous-yellow; head aciculate in the anterior frontal part, and plainly plicate longitudinally along the eyes; prothorax cordate, very slightly broader than long, sparingly punctulate in the median discoidal part, and more densely laterally; elytra with the shoulders rounded, sinuate laterally at about one-fourth of the length, and gradually amplified thence to a short distance from the apical part, deeply striate with the intervals convex, plainly although not very sharply tectiform and with the sides somewhat deeply but not closely punctate, each puncture bearing a very fine, short seta-like hair, in the basal part there is a transverse, quadrangular fuscous patch reaching the third stria on each side, continued as a narrow band along the suture and developing above the apical part into a shorter quadrate patch reaching the second interval, the apical part of the fifth interval is somewhat infuscate, and it is probable that in some examples this infuscate band is connected with the posterior sutural quadrate patch; under side and legs very pale testaceous-yellow, apical tarsal joint strongly bi-lobate.

Length 8 mm.; width $3\frac{1}{2}$ mm.

A distinct species.

Hab. (? Natal). G. A. K. Marshall.

LEBIA SIMULATORIA, n. sp.

Head and prothorax pale testaceous-red, elytra, legs, and under side almost straw-colour; head closely aciculate in the anterior part, and plicate along the orbits, hind part and neck impunctate; prothorax cordate, a little broader than long, finely punctulate laterally but very sparsely in the median discoidal part; elytra gradually amplified from the lateral sinus towards the posterior part, plainly costate, the costæ tectiform, moderately sharp at tip, and with the sides deeply but not closely punctate close to the stria, and the punctures very briefly setigerous, they have a transverse, basal black

patch extending as far as the third stria, continued as a sutural band as far as the median part, and triangularly dilated thence into a transverse posterior black band reaching the six stria and with both the anterior and posterior margins bi-sinuate; apical tarsal joints deeply bi-lobate.

The nearest ally of this species is *L. vaciva*, Péring., in which the intervals of the elytra are quite plane and impunctate, but the markings are the same.

Length $6\frac{3}{4}$ mm.; width $2\frac{3}{4}$ –3 mm.

Hab. Natal (Durban). C. N. Barker.

LEBIA UMTALINA, n. sp.

Head and prothorax fuscous-red, clypeus black; elytra flavescent with a basal transverse black patch extending on each side as far as the fourth stria, and a supra apical bi-sinuate one reaching the outer margin and connected with the basal one by a narrow black band along the suture; antennæ rufescent and with the fourth, fifth, and sixth joints deeply infusate; head aciculate and plicate; prothorax nearly twice as broad as long, ampliate and rounded laterally in the anterior part and faintly aciculate; elytra gradually ampliatted laterally from the base to a short distance from the apex, finely striate and with the intervals plane and smooth; basal apical tarsal joint strongly bi-lobate.

Length $6\frac{1}{2}$ mm.; width 3 mm.

Closely allied to *L. fortuita*, Péring.; it is, however, easily distinguished by the colour of the intermediate antennal joints.

Hab. Southern Rhodesia (Umtali). A. Bodong.

LEBIA INEDITA, n. sp.

Head infusate with the hind part and the prothorax testaceous-red, and the elytra flavescent and concolorous; head aciculate and faintly plicate longitudinally, posterior part smooth, antennæ and legs pale flavescent; prothorax rounded laterally in the anterior part, straight thence to the basal reflexed angle, slightly more than twice as broad as long, plainly aciculate; elytra slightly wider than the prothorax at the base, and very little ampliatted laterally in the posterior part, deeply striate, the intervals plainly convex but not distinctly tectiform, and impunctate; posterior abdominal segments fuscous; apical tarsal joints short, incised.

Allied to *L. inconspicua*, the shape of the prothorax is the same, but the elytra have no posterior black band as in *L. inconspicua*,

and the fourth joint of the anterior tarsi is less dilated in *L. inedita*.

Length $5\frac{1}{2}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

LEBIA EVICTA, n. sp.

Head and abdomen black; antennæ fuscous, but with the three basal joints flavescent; prothorax and legs testaceous-red; elytra testaceous-red but having a very large black patch invading the whole of the posterior part for more than half the area, and prolonged as a narrow, long triangle along the suture almost to the apex of the scutellum; prothorax twice as broad as long, rounded laterally in front, slightly sinuate above the sharp basal angle, finely aciculate-plicate; elytra oblong, rounded at the shoulders, very highly costate; apical tarsal joint of fore legs, short, deeply incised.

A close ally of *L. modesta*, Bohem., in which, however, the head is brick-red, the prothorax not quite as long, and the elytra black with an elongated yellowish patch extending on the 4-6 costæ from the base to the median part, and the abdomen is red instead of black as in *L. evicta*.

Length 7 mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall. (Umtali.) A. Bodong.

GEN. METALLICA, Chaud.

UMGENIA, Péring.

METALLICA MASHUNENSIS, n. sp.

Brownish-red, moderately shining, and with faint traces of a greenish sheen in the median dorsal part of the elytra, antennæ with the exception of the basal joint which is reddish, and tarsi black; head strongly striate along the eyes, wrinkled longitudinally on the vertex, and with a few scattered punctures on the neck; prothorax rounded and slightly amplified laterally, moderately deeply sinuate above the reflexed basal part, very faintly plicate transversely, and having a very slight median longitudinal line; elytra sub-parallel, but plainly sinuate laterally, punctato-striate with the intervals convex and tectiform in the anterior median dorsal part, and plainly punctulate, there are three punctures on the third, two posterior ones on the fifth, and numerous ones on the seventh interval.

Doubtless allied to *M. purpuripennis*, Chd. (known to me from the description only), which is brown, the elytra metallic purple with

green outer margins, and the antennæ and legs reddish, whereas in *M. mashunensis*; the antennæ, with the exception of the basal joint, and also the tarsi are black and the whole body brownish-red.

Length 9 mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

GEN. PENTAGONICA, Schm.-Goeb.

PENTAGONICA DISPAR, n. sp.

Head more or less deeply infusate, prothorax brick-red, antennæ flavescent with the three basal joints fuscous or black; elytra black with the suture and a narrow lateral margin rufescent; legs rufescent, occasionally partly infusate; head very finely and closely aciculate; prothorax more than twice as broad across the median part as long, very faintly aciculate, and with the median longitudinal impressed line very distinct; elytra broad, not more than twice longer than the width, deeply striate with the intervals raised, somewhat tectiform and very finely aciculate, the striæ have faint traces of punctures; under side either wholly or partly fuscous.

Length 4 mm.; width 2 mm.

Hab. Natal (Durban). C. N. Barker.

Easily identified by its colouration and the somewhat short and quadrate elytra.

GEN. LEBISTINA, Motsch.

LEBISTINA SPECTABILIS, n. sp.

Head, prothorax, and under side brick-red, elytra flavescent with a faint sub-basal fuscous patch on each side, antennæ, knees, and tarsi black; head deeply and closely punctate; prothorax one-third broader than long, obliquely amplified laterally in the anterior part, straight or hardly sinuate in the posterior, very rugose, scutellum rugose; elytra with the humeral part strongly rounded, gradually amplified laterally towards the posterior part, depressed, striate with the intervals plane and filled with irregularly disposed elongated punctures separated by smooth, raised, also irregular intervals; the fuscous patch is transverse, and extends on each side from the first to the fourth interval, and is situated at a short distance from the base.

Length 14 mm.; width 7 mm.

Hab. Transvaal (Rustenburg).

Allied to *L. holubi*, Péring., and differs mainly by the almost colourous elytra, the two small infusate patches being very faint.

GEN. THYREOPTERUS, Dej.

THYREOPTERUS ANGUSTICOLLIS, n. sp.

Black on the upperside, with the elytra opaque, the antennæ and palpi ferruginous, and the legs and under side piceous-red; head very elongate, impunctate; prothorax sub-parallel, slightly wider across the anterior than across the basal part, half again as long as broad, with the margins narrow and very little reflexed, it is shiny, like the head, narrowly impressed longitudinally in the centre, and plainly plicate, on each side of the base there is a fairly deep lateral impression; elytra broader at the base than the base of the prothorax, rounded at the shoulders, hardly amplified thence to the posterior rounded angle, strongly sinuate in the posterior margin and with the sutural angle strongly and sharply prolonged, they are plainly punctato-striate with the intervals plane, faintly aciculate and quite opaque; the last abdominal segment is deeply grooved longitudinally in the middle of the ventral surface, the groove being deeper at the apex, and having a deep depression on each side.

I have seen one example only of this interesting species, which differs from the other South African species in not having the prothoracic lateral margins strongly reflexed, the prothorax is also very much narrower, somewhat in the manner of a *Dromiid*.

Length 9 mm.; width 4 mm.

Hab. Cape Colony (Kentani, Transkei). Rev. F. C. Kolbe.

THYREOPTERUS LUGUBRINUS, n. sp.

Black, with the narrow margin of the prothorax, the palpi, the antennæ with the exception of the first, second, and third joints which are completely black, the coxæ, the median part of the abdomen and metasternum and the tarsi rufescent; on the elytra there is a narrow, transverse yellowish patch hardly zigzagged, reaching from the fourth to the sixth intervals, and a very faint yellowish supra-apical dot situated on the first interval; the prothorax is slightly narrower in the posterior than in the anterior part, plicate on the sides of the disk and with the normal longitudinal impressed line.

This species is slightly more elongated than *T. flavo-signatus*, the shape of the prothorax differs also slightly, and the yellow patches are considerably reduced in size; on the other hand the examples of *Thyreopterus flavo-signatus* occurring in the neighbour-

hood of Salisbury have the prothorax shaped as in the present species, and the legs, except the tarsi, are wholly black, but the partly infusate antennal joints and the yellow markings of the elytra are quite the same as in the typical *flavo-signatus*. It is this varietal form which Chaudoir noticed in Rev. and Mag. d. Zool., 1878, p. 145, as coming from Mombassa, adding, however, that he could not bring himself to separate specifically the example he saw from *T. flavo-signatus*, from Senegal, "which with slight modifications in the shape of the prothorax and the colour of the tarsi seems to have a wide range in Africa;" he mentions also the Cape and Natal in this area of distribution. I have seen one example only of *T. lugubrinus*, but I do not think that it is a melanic form of *T. flavo-signatus*.

Length 11 mm. ; width $4\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

TRIBE GRAPHIPTERINI.

GEN. GRAPHIPTERUS, Latr.

GRAPHIPTERUS SHEBANUS, n. sp.

Black with the three basal joints of antennæ piceous-red ; head, prothorax, and elytra covered with dense, appressed flavescent hairs, but each elytron has a broad black band on each side ; the head is massive, the prothorax short and broad but not angular in the anterior part, both head and prothorax are very closely scabrose-punctate, but the prothorax is not denuded in the centre, and the colour of the hairs is uniform ; elytra sub-elongate-quadrate, distinctly rounded laterally only near the shoulder, sub-striate, hairs concolorous, the band on each side is about half the width of each dorsal area, situated at a short distance from the suture, and begins at a short distance from the base, but does not reach quite the apical margin ; legs and under side glabrous, shining.

This species belongs to the group of *G. macrocephalus* and *G. chaudoiri*. It is distinguished from the latter by its larger size, the more quadrate elytra, and the disposition of the discoidal bands which are broader in proportion and reach nearer to the base and apex.

Length 15-16 mm. ; width 7-8 mm.

Hab. Transvaal (Barberton).

TRIBE ANTHIINI.

GEN. POLYHIRMA, Chaud.

POLYHIRMA COMMISTA, n. sp.

Black, moderately shining; head with a greenish-white pubescence continued as a median band along the neck, the median part of the prothorax and the scutellary region, and having also an apical median patch on the elytra, the sides of the sternum are moderately densely hairy; prothorax cordiform very closely and somewhat roughly punctate; elytra elongated and having on each side in addition to the supra-marginal carinule seven very sharp keels, the sixth of which begins only at about three-fourths of the length, these keels reach from the base to a short distance from the apex in both sexes, and the intervals are very deeply alveolate, the bottom of the alveolæ is black, the basal part is not alveolate for about one-eighth of the length, and the median hairy whitish band reaches only as far as that.

This species is closely allied to *P. macilenta*, and differs only in the background of the alveolæ not being fulvous. It might be considered as a mere variety of the former, which, however, it replaces in Southern Rhodesia north of Buluwayo and in Damaraland and Ovampoland, and it is therefore entitled to be considered as a valid species.

Length 20–22½ mm.; width 5¾–6½ mm.

Hab. North-West Damaraland; Ovampoland; Southern Rhodesia.

TRIBE CHLÆNIINI.

GEN. CHLÆNIUS, Bon.

CHLÆNIUS DITULUS, n. sp.

Head and prothorax bronze green, shining, elytra bluish-green with an elongated rufescent band extending from the third to the eighth stria, beginning slightly past the median part and reaching the apex, antennæ fuscous with the three basal joints reddish, legs and tarsi red; head aciculate with the median part smooth; prothorax very elongato-ovate, as broad at the apex as at the base, covered with deep, nearly contiguous and moderately broad punctures; elytra narrow, elongated, the humeral part strongly rounded, intervals very deeply and closely punctured,

the pubescence is slightly fulvous; pectus and abdomen almost black, the latter iridescent, the former foveolate.

This species is, with the exception of *C. (Vertagus) hacquardi*, the most slender of the South African species; the shape of the prothorax resembles that of *C. bohemani*, but it is a little narrower; the shoulders are also more rounded.

Length $10\frac{1}{2}$ mm.; width $3\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

CHLÆNIUS PRONUS, n. sp.

Dark bronze-green with the head brighter green, and the outer margins of the prothorax and elytra greenish-blue, the latter have a narrow, apical, marginal flavescent narrow band, the legs are light flavescent, and so are the three basal, antennal joints; head deeply and closely punctate, the punctures separated by an interval narrower than their own diameter; prothorax as broad as long, sub-parallel, very slightly broader laterally towards the median than in the anterior part, and only very slightly sinuate in the posterior above the outer apical angle which is fairly sharp, it is covered with punctures as closely set as on the head, but slightly deeper, the median longitudinal line is fine, and the lateral impressions normal, scutellum impunctate; elytra not wider than the base of the prothorax at the base, but slightly amplified for a very short distance near the humeral part, oblong, narrowly punctato-striate with the intervals almost plane, but costulate towards the apex, and covered with deep, nearly contiguous punctures, the apical flavescent band is confined to the marginal part, and the very short pubescence is flavescent.

In general appearance it is not unlike *C. cupreocinctus*, Reich., but it is much smaller, and the prothorax is much more parallel.

Length 10– $10\frac{1}{2}$ mm.; width 5– $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

GEN. ZELOTICUS, Péring.

ZELOTICUS UMTALIANUS, n. sp.

Black, with the edges of the prothorax faintly bluish-bronze, under side and legs very dark cyaneous and iridescent; elytra black, opaque, with four dorsal yellowish white patches, and a supra-marginal narrow band of the same colour; head scrobiculate-punctate in the posterior part, and with a nearly smooth median elongate-

quadrate patch; prothorax as broad as long, ovate not wider at the base than across the anterior part, scrobiculate, the scrobes divided by a very thin wall, the two posterior basal impressions deep, but somewhat short, the median line deep; elytra elongate-ovate, but somewhat amplified in the posterior part (♀), highly costate, each costa with two rows of punctures bearing stiff, upright, fairly long bristle-like hairs curving backwards at tip, the first dorsal patch consists of three elongated bands extending from the third to the sixth stria, these bands coalesce in the interstices, and the first one is longer than the other two, the posterior supra-apical one is in the shape of a narrow transverse band reaching from the first to the seventh stria, the ninth or outer costa is yellowish-white from the base to the apex, and the apical part of the eighth and in a lesser degree of the seventh is also suffused with the same colour.

Differs from *Z. tristis*, Péring., by the less elongated and very closely scrobiculate prothorax which is almost roughly shagreened instead of the punctures being separated by smooth intervals as in *Z. tristis*; the elytra are more amplified, more highly costate, and the disposition of the yellowish-white markings is different.

Length 16 mm.; width 6 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

GEN. CALLISTOMIMUS, Chaud.

CALLISTOMIMUS PLACENS, n. sp.

Testaceous-red, with the basal joints of the elytra and the legs more flavescent; elytra testaceous but having cloudy greenish longitudinal markings along the first seven intervals, these greenish lines, which are somewhat interrupted, reach on the third and fourth intervals from near the base to slightly past the median part, they are shorter on the fifth and sixth, while on the first and second they begin at some distance from the base and reach further behind where they meet a transverse, somewhat zigzagged, evanescent band of the same colour; the head and prothorax are covered with nearly contiguous deep punctures separated by a slightly raised wall, the intervals of the deeply striate elytra are shagreened and briefly pubescent, and the pubescence is pale yellow.

The nearest South African ally of this species is *C. insuetus*, but the elytra are much less strongly shagreened, and the pattern of the elytra is different.

Length $6\frac{1}{2}$ mm.; width 3 mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

TRIBE PANAGÆINI.

GEN. CRASPEDOPHORUS, Hope.

CRASPEDOPHORUS LATICOLLIS, n. sp.

Black, covered on the upper side with a sub-fulvescent, dense pubescence; head very rugose; prothorax three times as wide as the head, broadly dilated from the anterior angle, gradually amplified and rounded to about three-fourths of the length, where it is deeply notched, straight thence, and notched again above the basal angle which does not project beyond the top part of the incision, the outer margins are strongly reflexed, the base is slightly wider than the apex, it is covered with almost contiguous foveate punctures separated by slightly raised walls, and the two basal impressions appear very deep owing to the strongly reflexed outer margins; elytra only slightly broader at the base than the prothorax at its widest part, sub-parallel, punctato-striate with the intervals moderately convex but sub-rectiform in the anterior part, and having on each side two pale-yellow patches, the first one consists of four very short bands set on the fifth, sixth, seventh, and eighth intervals, the two outer ones are slightly longer than the two inner, and their base is on a level with the anterior part of the latter, the posterior patch consists of five coalescing bands extending from the third to the eighth stria, the median band projecting for half its length beyond the anterior margin of the patch and being proportionally shorter in the posterior; epipleural fold and abdomen punctate, pectus foveate-punctate, the whole under side pubescent, ventral segments not crenulated on their front margin.

This species will be easily recognised by the extremely broad prothorax.

Length 16 mm.; width 8 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

CRASPEDOPHORUS MERUS, n. sp.

Black, shining; head rugose; prothorax twice as broad as the head, dilated from the rounded anterior angle, gradually amplified and rounded to nearly three-fourths of the length where it is broadest, deeply sinuate there but not notched, nearly straight thence and slightly notched at the base the angle of which projects visibly, it is strongly scrobiculate, the outer margins are strongly reflexed, and the base is slightly wider than the apex; elytra oblong, punctate-striate with the intervals convex, rectiform, very closely

punctured, and having on each side three short ante-median pale yellow bands situated on the third, fifth, and seventh intervals, the outer band being one-third longer than the other two, and a supra-apical patch consisting of five coalescent, also short bands extending from the third to the eighth, the second and third bands project beyond the base of the others and are proportionately shorter anteriorly, the third and fifth bands are of nearly the same length, the first one is the shortest; sculpture and vestiture of the under side normal; abdominal segments not crenulated on their front margin.

Length $17\frac{1}{2}$ – $18\frac{1}{2}$ mm.; width 7–8 mm.

The shape of the prothorax is not unlike that of *C. (Episcomus) pretiosus*, Chaud., but it is more amplified in the anterior part, and the outer margins are more strongly reflexed; the patches of the elytra are quite different from those of *C. pretiosus*.

Hab. Southern Rhodesia (Umtali). A. Bodong.

TRIBE STOMINI.

GEN. DISPHÆRICUS, Waterh.

DISPHÆRICUS RHODESIANUS, n. sp.

Black, shining, glabrous; ultimate antennal joints, somewhat rusty brown; palpi brown; head and prothorax impunctate, the former with the two frontal sulci very deep, the latter ampliate ovate with the median longitudinal impressed line very plain and as deep as the supra-lateral one; elytra ovate, very convex, deeply striate, the striæ closely but not deeply punctate, and the intervals strongly convex, sub-pectiform, and smooth.

Very closely allied to *D. sulcostriatus*, Fairm., which it closely resembles, but in the latter, which is also larger, the median longitudinal impressed line on the prothorax is hardly distinct, whereas in *D. rhodesianus* it is as deep as the supra-lateral one and quite conspicuous.

Length 7–8 mm.; width $2\frac{3}{4}$ –3 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

TRIBE PLATYSMATINI.

GEN. ABACETUS, Dej.

A². Prothorax, elytra, and legs glabrous; striæ of elytra impunctate.

B². Inner spur of anterior tibiæ bi- or tri-cuspid.

Tarsi pluri-sulcate.

A. auspicatus ; *A. vexator*.

B¹. Inner spur of anterior tibiæ simple.

a⁴. Tarsi pluri-sulcate.

b². Fifth joint of hind tarsi glabrous underneath.

A. emeritus ; *A. diversus* ; *A. lautus* ; *A. dilucidus* ; *A. minus* ; *A. jucundulus* ;

A. servitulus.

a³. Tarsi sulcate on each side only.

b². Fifth joint of hind tarsi glabrous underneath.

A. malvernensis.

a². Tarsi sulcate outwardly only.

b². Fifth joint of hind tarsi glabrous underneath.

A. vertagus.

b¹. Fifth joint of hind tarsi setulose underneath.

A. optimus ; *A. clarus*.

a¹. Tarsi not sulcate.

b². Fifth joint of hind tarsi not setulose underneath.

A. discrepans ; *A. evulsus* ; *A. shilouvanus* ; *A. inopinus* ; *A. effulgens*.

A¹. Prothorax, elytra, and legs villose ; striæ of elytra punctate.

a¹. Tarsi not sulcate.

A. jubatulus ; *A. pilosulus*.

ABACETUS AUSPICATUS, n. sp.

Black, shining, the base of the four first joints of antennæ narrowly rufescent at the base, palpi piceous or piceous-red ; frontal impressions deep ; prothorax regularly arcuate laterally from the anterior angle to two-thirds of the length, and slanting thence to the posterior angle which projects as a minute tooth, the outer margin is narrowly reflexed from apex to base, the juxta-marginal sulcus is fairly deep, but slightly narrower as it approaches the outer angle of the base which is plainly narrower than the apex and narrowly grooved along the margin, the two basal impressions are long and deep, the median basal part between these two impressions is plainly punctulate, the well-marked median longitudinal line is plainly deepened in the basal part, the disk, which is broadest across the median part, is very little convex in the anterior, and the sides of the posterior are not reflexed ; elytra oblong, twice as long as the prothorax, with the shoulders slightly curving and aculeate, deeply striate with the intervals raised but not tectiform, the third with the setigerous puncture about median ; pro- and metasternum

smooth, metasternal episterna narrow and very long; inner spur of anterior tibiæ bifid, but with a slight spine underneath, posterior tibiæ deeply tri-sulcate; hind tarsi also tri-sulcate, fifth joint not setulose underneath in the male, which has also a single setigerous puncture on each side of the last abdominal segment.

This species is allied to *A. nigrinus*, Boh., in which the inner spur of the anterior tibiæ are also bifid, but it is larger and somewhat more massive, and in the two male examples which I have seen the intervals of the elytra are plainly more convex than in *A. nigrinus*, where they are plane, and the curve of the humeral part is more elongated in the last-named species.

Length 11–12 mm.; width $4\frac{1}{4}$ – $4\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). Natal (Durban).

ABACETUS VEXATOR, n. sp.

Black, shiny, antennæ black with the three basal joints piceous; frontal impressions deep, somewhat broad, the sulcus arcuate; prothorax ampliatio-arcuate for two-thirds of the length, and widest across the median part, narrowed in the third posterior part, but not sinuate, although the sharp basal angle projects, the outer margin is finely reflexed, the lateral sulcus is narrow, but deep, and reaches close to the posterior pore, and is continued thence along the base so as to meet the basal sulcus which is situated nearer to the outer margin than to the median longitudinal part, the basal space between the two sulci bears a few nearly obliterated punctures, the sides of the posterior part are not depressed; elytra oblong, as broad slightly past the humeral part as the prothorax at its widest point, the impunctate striæ are deep, the intervals convex, and the setigerous pore on the third interval is median; last abdominal segments with two setigerous punctures (σ), metasternum and episterna faintly aciculate, metasternal episterna longer than broad; inner spur of anterior tibiæ thick, somewhat blunt and slightly cuspid on each side at the base; hind tarsi plurisulcate.

Length 9 mm.; width 4 mm.

Hab. Southern Rhodesia (Upper Limpopo). A. W. Eriksson.

ABACETUS EMERITUS, Péring.,

Ann. S. Afr. Phil. Soc., 1898, p. 359.

Black, shiny, palpi sub-rufescent; the three basal antennal joints and the tarsi piceous; frontal impressions somewhat broad and

reaching the anterior setigerous pore; prothorax as broad as long, arcuate laterally from apex to base, but broader in the anterior than in the posterior part where it is not sinuate, but the basal angle is sharp, and projects, the outer margin is reflexed, the lateral sulcus is narrow and reaches from the anterior angle to the basal pore and is not continued along the basal margin to the basal longitudinal sulcus, the space along the base between the sulci and the median longitudinal line is impunctate, the anterior part of the disk which is broadest across the median part is slightly convex and the sides of the posterior are not depressed or reflexed laterally; elytra oblong, narrower than the base of the prothorax but with the humeral part slanting, the impunctate striae are deep and the intervals plane, the puncture on the third interval is about median; the under side is smooth; the episterna only slightly longer than broad, the last abdominal segment has four setigerous punctures (♀); the hind tibiae are tri-sulcate, and so are the hind and intermediate tarsi.

Not unlike some species of *Melanodes*.

Length 9 mm.; width 4 mm.

My previous description of this species was somewhat faulty.

ABACETUS DIVERSUS, n. sp.

Black, very shiny, the two basal antennal joints, the palpi, the extreme edge of the lateral marginal fold and the legs more or less deeply piceous-red; frontal impressions somewhat slender, arcuate; prothorax longer than broad, moderately attenuated laterally from the anterior setigerous puncture to the sharp anterior angle, sub-parallel from the setigerous puncture to the outer basal angle, yet slightly sinuate at about two-thirds of the length, the posterior angle is sharp but does not project, the marginal fold is reflexed, the sulcus is not deep and disappears almost in the posterior part at about two-thirds of the length, then starts again near the posterior setigerous puncture and runs along the straight base, which is wider than the apex, as far as the somewhat long, narrow, slightly arcuate basal sulci, the space between them and the median longitudinal impressed line is impunctate, and the sides of the hind part is plane; it is very little convex in front, and its greatest width is across the middle, which is, however, hardly wider than the base; elytra oblong, hardly sloping behind the sharp humeral angle, the impunctate striae are deep, and the intervals quite plane; the puncture on the third interval is situated slightly past the median part; they are slightly narrower at the base than the prothorax at its widest part;

under side impunctate, episterna not narrow, and only slightly longer than the anterior edge; last abdominal segment with two setigerous punctures in the male, four in the female; posterior tibiæ strongly tri-sulcate; hind and intermediate tarsi also pluri-sulcate, fifth joint of hind ones not selutose.

Length $10\frac{1}{2}$ mm.; width 4 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

This species is not unlike *A. lucidulus*, Boh., but the prothorax is broader and the marginal sulcus not so deep.

ABACETUS LAUTUS, n. sp.

Black, very shiny, palpi rufescent, the three basal antennal joints slightly piceous-red; frontal impressions deep, plainly arcuate; prothorax longer than broad, arcuato-ampliate from the anterior angle to two-thirds of the length, plainly narrowed thence and sinuated above the sharp basal angle which projects slightly, the greatest width is found at about one-third of the length, the outer margin is narrowly reflexed, the supra-marginal sulcus is fairly wide, runs from the anterior angle to the basal part, and continues alongside of it as far as the long basal sulcus which, owing to the narrowing of the posterior part, is set nearer to the margin than to the median longitudinal line, the space between the two is impunctate; elytra oblong, with the shoulders hardly slanting and the humeral angle sharp, narrower at the base than the widest point of the prothorax, but equally wide slightly past the median part, the impunctate striae are deep and the intervals plainly tectiform; metathoracic episterna somewhat short, only slightly longer than the anterior part; last abdominal segment with two setigerous pores (σ); hind tibiæ and tarsi pluri-sulcate.

Length 10 mm.; width $3\frac{3}{4}$ mm.

This species is easily recognised by the elongated, sub-cordiform shape of the prothorax.

Southern Rhodesia (Umtali). A. Bodong.

ABACETUS DILUCIDUS, n. sp.

Black, shiny; palpi, legs, and the basal antennal joints rufescent or red, the other antennal joints slightly infusate, outer margin of prothorax rufescent; frontal impressions slightly oblique; prothorax as broad as long, regularly but not broadly arcuate laterally, its greatest width is slightly in front of the median part, the outer

margin is sharp and slightly reflexed, the lateral sulcus wide and reaches from the apex, the angle of which is sharp but not projecting, to the somewhat indistinct hind pore, and is connected along the margin by a narrow line with the basal sulcus, which is situated slightly nearer to the outer margin than to the median longitudinal line, the interval between the basal sulcus and the median line is impunctate, and the sides of the posterior part of the disk are not depressed; elytra oblong, slightly wider than the base of the prothorax, and as broad slightly past the humeral part as the widest point of the prothorax, striae impunctate, deep, intervals convex, the puncture on the third interval median; last abdominal segment with two or four setigerous punctures according to the sex; metasternal episterna much longer than the anterior edge; hind tarsi pluri-sulcate.

Allied to *A. pavoninus*, but smaller, and the prothorax is less amplified laterally.

Length 8-9 mm.; width $3\frac{1}{2}$ - $3\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS MIMUS, n. sp.

The description of *A. dilucidus* suits the present species, except that the sides of the prothorax are depressed in the basal part between the basal sulcus and the outer angle, which is sharp, but does not project, the basal sulcus is equi-distant from the outer margin and from the median longitudinal line, and the space between the two is finely and very closely punctulate (♀), the prothorax is also slightly wider at the base.

Length 8 mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia. (Umtali). A. Bodong.

ABACETUS JUCUNDULUS, n. sp.

Intermediate in shape and in the sculpture of the prothorax between *A. dilucidus* and *A. mimus*; from the former it differs by the colour, which is plainly iridescent, especially the elytra, the shape of the prothorax is the same, but the space between the median longitudinal line and the basal sulcus is sparsely punctulate, the punctures being denser along the sulcus, whereas in *A. dilucidus* this space is plainly impunctate; from *A. mimus* it differs in the prothorax being slightly narrower towards the base, and in the basal space between the longitudinal line and the basal sulcus being

sparsely instead of closely punctate, and in not having the sides of the posterior part depressed (♀).

Length 8 mm.; width $3\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS SERVITULUS, n. sp.

Black, with the three basal joints of the antennæ reddish, the joints are infusate, the anterior legs are more reddish than the intermediate and posterior ones, which are piceous; the elytra have a slight iridescent sheen; frontal impressions somewhat short, arcuate; prothorax as long as broad, widest at about the median part, arcuate-ampliate laterally from the anterior angle to two-thirds of the length, and sloping thence without sinuation to the outer basal angle, which is sharp, but not projecting, the outer margin is slightly piceous-red, plainly reflexed, the lateral sulcus runs from the apical to the basal angle, and is continued as an occasionally faint, impressed line reaching the basal sulcus the base of which is situated nearer the outer margin than to the median impressed line, the supra-basal space between the two is closely punctulate, the posterior part of the sides is not depressed; elytra oblong, intervals convex with the striæ impunctate, the setigerous puncture of the third interval median; last abdominal segment bi- or quadri-setigerous according to sexes; the sides of the segments, the metasternum and the metasternal episterna are plainly punctate, the latter are longer externally than the anterior border; posterior tarsi pluri-sulcate; fifth joint glabrous underneath.

The general facies is not unlike that of *A. clarus*, which belongs to another group of the genus, but the posterior part of the prothorax is straighter, and not sinuate.

Length $7\frac{1}{2}$ –8 mm.; width $3\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS MALVERNENSIS, n. sp.

Black, very shiny with the palpi, the legs and the three basal antennal joints red, the other antennal joints are rufescent; head with the frontal impressions short, narrow but deep, and arcuate; prothorax longer than broad, slightly arcuate laterally from the anterior angle to nearly the median part, sub-diagonally attenuated thence to the base, the sharp angle of which projects slightly, making the part of the outer margin adjoining it appear as if slightly sinuated immediately above it, the lateral margin is sharp, slightly reflexed,

the sulcus is narrow and reaches from the anterior angle to the hind pore and is not continued along the base, the space between the median part and the basal sulcus is much broader than between the sulcus and the outer margin, and is finely and closely punctate, the interspace between the two basal sulci is plane, whereas that between the outer margin and the basal sulcus follows the slight convexity of the disk which is broadest slightly before the median part; elytra oblong, with the shoulders not much sloping, slightly wider below the shoulders than the prothorax, the impunctate striae are deep, and the intervals very plainly convex, the puncture on the side of the third interval is almost median; last abdominal segment with the two normal punctures (σ); metasternum and episterna punctulate, metasternal episterna long; the three basal joints of the hind tarsi are sulcate on each side, and the basal one has a few very short setae on each side in the male.

Length 8 mm.; width 3 mm.

Hab. Natal (Durban). C. N. Barker.

Not unlike *A. natalensis*, which however belongs to a different group, but with the prothorax less amplified laterally and straighter in the posterior part. This species is probably very closely allied to if not identical with *A. rufipalpis*, Chaud., which I know from the description only, but the median basal part of the prothorax is finely punctate, and de Chaudoir does not mention this character.

ABACETUS OPTIMUS, n. sp.

Black, shining iridescent, antennae, palpi and legs reddish; frontal sulci arcuate; prothorax broader than long, and widest across past one-third of the length, strongly arcuate laterally for two-thirds of the length, narrowed thence but not sinuated above the hind angle which is sharply angular, the reflexed margin is sharp, the lateral sulcus deep, reaching the hind setigerous puncture and continued along the base as a deep line reaching the basal sulcus which is separated from the median longitudinal line by an impunctate space slightly wider than that separating it from the outer margin, the sides of the posterior part are not depressed; elytra oblong, as wide behind the sloping shoulders as the prothorax, the impunctate striae are deep, the intervals moderately convex, the setigerous pore on the third interval is situated past the median part; metasternal episterna long; the hind tibiae are not sulcate inwardly, and only the first joint of the hind tarsi is sulcate outwardly, the fifth joint is slightly setulose underneath.

This species is not unlike *A. natalensis*, but differs by the colour of the legs, and the wider prothorax which is also less cordiform. In *A. natalensis* the hind tibiæ are plainly grooved inwardly.

Length 7 mm. ; width 3 mm.

Hab. Southern Rhodesia (Salisbury), G. A. K. Marshall. Natal (Isipingo), C. N. Barker.

ABACETUS CLARUS, n. sp.

Black, very shiny, slightly iridescent; palpi and legs reddish, antennæ rufescent with the three basal joints plainly reddish; frontal impressions narrow, but deep and arcuate; prothorax as broad at its widest part as long, arcuately amplified laterally from the anterior angle to two-thirds of the length, attenuated obliquely thence to the sharp, very little projecting basal angle which is covered by the setigerous pore, the outer margin is sharp and slightly reflexed, the sulcus is very plain, and of equal width from the apex to close to the hind pore, and is not continued along the base only as a very faint impressed line, the basal sulci are normal and set nearer to the outer margin than to the median longitudinal line, and the space between the two is clearly impunctate, the anterior part of the disk which is at its widest in front of the median part is slightly convex and the sides of the posterior are neither depressed nor reflexed; elytra oblong with the humeral part very little sloping, as broad slightly below the shoulders as the prothorax at its widest part, the impunctate striae are well defined, the intervals are slightly raised, and the puncture on the third interval is nearly median; last abdominal segment with the normal four setigerous punctures (♀); hind tibiæ not grooved inwardly, posterior tarsi with the three basal joints grooved outwardly; apical joint finely setulose underneath; metasternal episterna nearly one-third longer than the anterior edge.

This species is very closely allied to *A. severini*, Tsch., a species from the Congo Free State (Boma), of which I have two types and in which the hind tarsi have the three basal joints grooved outwardly, but the posterior part of the prothorax is more constricted laterally and therefore more cordiform, and the episterna are slightly longer.

Length $7\frac{1}{2}$ mm. ; width 3 mm.

Hab. Transvaal (Zoutpansberg). Rev. H. Junod.

ABACETUS VERTAGUS, n. sp.

Black with the elytra iridescent, the palpi, the three basal joints of antennæ and also the basal part of the fourth are rufo-flavescent,

the others black, and the antennæ are long and somewhat slender, the femora are slightly fuscous, the tibiæ and tarsi flavescent; the frontal impressions are not deep, and the short sulcus is arcuate; prothorax as broad as long, arcuate laterally from the angle of the anterior part which is nearly straight to about four-fifths of the length where it is slightly narrowed but not sinuate, its greatest width being across the median part, the basal outer angle is sharp, the outer margin slightly reflexed, the lateral sulcus narrow and continued at the base as far as the basal sulcus which is set close to the outer margin, the space between the two basal sulci is numerous punctulate, but the number of punctures vary in some examples, there is no impressed arcuate line in the anterior part of the disk and the sides of the posterior part are not depressed nor reflexed; elytra oblong with the shoulders slightly rounded and broader than the prothorax at its widest part, the impunctate striæ are moderately deep, the intervals plane, the puncture on the side of the third interval is median, and the edge of the outer margin and also the epipleural fold are flavescent as in some species of *Stenolophus*; under side impunctate, metasternal episterna narrow, much longer than broad; posterior tibiæ not deeply sulcate inwardly, first and second joints of hind tarsi sulcate outwardly, fifth joint glabrous underneath.

I know of no South African species with which this species can be compared.

Length $4\frac{1}{2}$ – $6\frac{3}{4}$ mm.; width $2\frac{3}{4}$ mm.

Hab. Mozambique (Beira). P. A. Sheppard.

ABACETUS DISCREPANS, n. sp.

Black, shiny, the elytra have a faint bronze tinge, the three basal joints of the antennæ are reddish, but the third one is somewhat infusate, the other joints are deeply fuscate, the femora also, the tibiæ are lighter than the femora, and the tarsi, especially the anterior ones, are flavescent; frontal sulci moderately long, arcuate; prothorax a little narrower at the base than at the apex, not much amplified laterally, but regularly arcuate for two-thirds of the length, and oblique thence as far as the basal angle which projects, the lateral sulcus is connected along the base with the deep basal sulcus which is situated nearer to the outer angle than to the median longitudinal line, and the space between these two basal sulci is sparsely punctate, the sides of the posterior part are not depressed; elytra oblong, broader slightly past the not much rounded shoulders

than the prothorax at its widest part, the impunctate striæ are deep, the intervals moderately convex, the puncture on the side of the third interval is situated slightly in front of the median part, under-side impunctate, metasternal episterna longer than broad; the sulci of the hind tibiæ are plain, without being very deep, the hind tarsi are not sulcate, and the fifth joint is glabrous underneath; last abdominal segment with two or four setigerous punctures according to the sex.

This species resembles *A. pygmæus*, Bohem., which is, however, metallic green with the legs red, but the prothorax is not so much narrowed behind, nor is it sinuate above the basal angle.

Length $4\frac{3}{4}$ mm.; width $1\frac{1}{5}$ –2 mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

ABACETUS EVULSUS, n. sp.

Bronze-green, slightly less green on the elytra than on the prothorax; femora infusate, tibiæ flavescent except at apex and base, antennæ black with the three basal joints red; frontal sulci as in the preceding species; prothorax cordate, amplified laterally, constricted and slightly sinuate in the posterior part, but with the base very little narrower than the apex, the lateral sulcus is narrow and connected with the basal one by a still narrower impressed line, but is otherwise as in *A. discrepans*; the elytra are oblong, the intervals plane, the puncture on the side of the third interval is ante-median; the under side and legs are as in *A. discrepans*.

The nearest ally of this species is *A. pygmæus*, Boh., but the prothorax is more amplified laterally, the intervals of the elytra are quite plane, and the puncture on the third interval is situated only slightly past the first third of the length, instead of being about median as in *A. pygmæus*.

Length 5 – $5\frac{1}{2}$ mm.; width 2 – $2\frac{1}{4}$ mm.

Hab. Mozambique (Beira). P. A. Sheppard.

ABACETUS SHILOUVANUS, n. sp.

Blackish-bronze with the three basal joints of the antennæ red, the other joints are deep fuscous; the femora almost black, the tibiæ and tarsi flavescent; the head and prothorax are as in *A. evulsus*, but the elytra are more elongated, the humeral part is less rounded, and not wider past the shoulder than the prothorax at its widest point, they are also slightly sinuate laterally, the striæ are deep, the

intervals quite plane and the third one bears no puncture; under side and tarsi as in the two preceding species.

Length $6\frac{1}{2}$ mm. ; width $2\frac{1}{2}$ mm.

Hab. Transvaal (Pietersburg). Rev. H. A. Junod.

ABACETUS INOPINUS, n. sp.

Black, shiny, slightly iridescent, antennæ and legs rufescent, posterior part of elytra also rufescent; frontal sulci not deep, arcuate; prothorax as broad as long, gradually arcuate laterally from the slightly rounded anterior angle to two-thirds of the length, obliquely narrowed thence to the sharp, projecting posterior angle, the lateral sulcus abuts almost on to the basal one which is set close to the outer angle, and the basal space between the two sulci is deeply punctate, the sides of the posterior part are not depressed; elytra oblong with the humeral part rounded, as wide at the shoulders as the prothorax at its widest point, the impunctate striae are deep, the intervals moderately raised, the puncture on the third interval is slightly ante-median, and the posterior part of the convexity is rufescent; the hind tibiae are very weakly grooved, the hind tarsi are not sulcate, the last joint is glabrous; the under side is smooth and the metasternal episterna longer than broad.

Length 6 mm. ; width 2 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS EFFULGENS, n. sp.

Light bronze, shiny on the upper part, bronze-black on the under-side; antennæ black with the basal joint red and the two following fuscous-red, femora fuscous-red, tibiae red; frontal sulcus somewhat long, oblique; prothorax as broad as long, amplified and rounded laterally for two-thirds of the length, and slightly sub-obliquely narrowed and sinuate in the posterior part the outer angle of which is sharp and slightly projecting, the base itself is slightly wider than the anterior margin, the lateral sulcus is deep and connected along the base with the basal one which is set somewhat close to the outer angle, the space between the two basal sulci is very closely punctate; elytra oblong, very little rounded at the shoulders, not wider than the prothorax at its broadest point, the impunctate striae are moderately deep, the intervals plane, the strong puncture on the third interval is about median, and there is a slight longitudinal median impression on the two first intervals; the under side is impunctate, the metasternal episterna are longer than broad; the

hind tibiæ are hardly sulcate laterally, the hind tarsi are not sulcate, and the fifth joint is glabrous.

A distinct species.

Length $6\frac{3}{4}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS JUBATULUS, n. sp.

Ferruginous, with the antennæ sub-rufescent, and the legs flavescent, the former are long; the frontal impressions are long and the sulcus not arcuate, the sides of the head are punctulate; the prothorax and elytra are depressed, the former is rounded laterally but not amplified from the sharp anterior angle to two-thirds of the length and gradually narrowed thence to the very sharp and strongly projecting basal angle, the base is narrower than the apex, the outer margin is finely reflexed, the lateral sulcus is deep and has a series of closely set punctures bearing each a long seta, but is not connected with the basal sulcus which is very lateral, the median marginal part of the base is finely grooved, and the basal space between the two sulci bears a few deep punctures; elytra oblong, depressed, slightly wider at the base than the prothorax at its broadest part, the striæ are finely punctate and the intervals raised, the setigerous puncture on the third interval is situated past the median part, and the outer margin of the elytra has a fringe of closely set, flavous hairs; the whole under side is closely punctate, the punctures on the abdominal segment are fine and closely set, and each one is strictly setigerous, those on the pectus are broader, deeper and not setigerous, the metathoracic punctulate episterna are longer than broad; the legs and tarsi are pubescent, the hind tibiæ not sulcate inwardly, the hind tarsi are not visibly sulcate, and the fifth joint is setulose underneath; the last abdominal segment bears two or four setigerous punctures according to the sex.

Length $4\frac{3}{4}$ mm.; width $1\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

ABACETUS PILOSULUS, n. sp.

Ferruginous brown, antennæ and legs sub-flavescent; frontal sulci long, sides of the head finely punctate; prothorax very little arcuate in front, moderately amplified laterally for about two-thirds of the length, obliquely narrowed thence, but without any sinuation, to the outer basal angle which is very sharp and projects conspicuously, the lateral sulcus bears a series of closely set punctures bearing each

a long seta and is similar in shape and sculpture to *A. jubatulus*; the elytra, however, are not depressed as in the latter species and the convexity in the posterior part is very well marked, the striae are slightly more finely punctulate and the intervals a little more sharply convex, the puncture on the third interval which in *A. jubatulus* is situated at about two-thirds of the length is set at a short distance only of the median part in *A. pilosulus*, but the fringe of hairs along the margin and the pubescence of the under side and legs are the same in both species.

I have seen only one female example of this species, which differs also from *A. pilosulus* in having slightly shorter and thicker antennae.

Length $4\frac{1}{2}$ mm.; width $1\frac{3}{4}$ mm.

Hab. Natal (Lower Unkomas). C. N. Barker.

TRIBE PLATYNINI.

GEN. PLATYNUS, Bon.

PLATYNUS (MEGALONYCHUS) UMTALIANUS, n. sp.

Black with the head shiny but the prothorax and elytra subopaque, palpi, basal joint of antennae and femora pale flavescent, tibiae slightly infusate; head impunctate; prothorax equally amplified laterally in the anterior and posterior parts, very slightly angular in the middle, this angle is slightly sharper in the male than in the female, the margin is strongly reflexed all round, the sides of the posterior part are somewhat depressed, the median longitudinal impression is very well defined, and the whole surface is very closely shagreened; elytra oblong for three-fourths of the length, and subacuminate thence towards the apex which is strongly sinuate, they are punctato-striate with the intervals slightly convex in the male, planer in the female, and closely aciculate, the three punctures on the third interval are well defined, and the sutural angle is very sharp.

Not unlike *P. latipennis*, Boh., but the prothorax is not so broadly amplified, and the surface is more plainly shagreened.

Length $13\frac{1}{2}$ –14 mm.; width 5 – $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

PLATYNUS (ANCHOMENUS) INSUETUS, n. sp.

Black, shiny, labrum, palpi, antennae, outer margin of prothorax and legs flavescent; head impunctate; prothorax amplified laterally

in the middle which is slightly angular, the posterior part is slightly more oblique than the anterior, and the very strongly recurved margin seems more highly raised in the posterior part owing to the great depression of the sides, the median part of the disk is smooth, but the sides are broadly and deeply punctured, the base has also a broad band of punctures, but the anterior part is only slightly punctulate, and the posterior angles are not very sharp; elytra oblong, with the sutural angle sharp, deeply punctato-striate with the intervals convex, the third has one anterior and one median puncture; the two basal joints of the anterior tarsi of the male are slightly sulcate outwardly.

This species is very closely allied to *P. crenato-striatus*; the general facies is the same, but all the joints of the antennæ are flavescent, and the punctures in the striæ are not so deep, nor are the intervals quite so much raised.

Length 10–11½ mm.; width 4–4½ mm.

Hab. Natal (Durban). C. N. Barker.

PLATYNUS (ANCHOMENUS) EMERITUS, n. sp.

Black, very shiny, especially the elytra; palpi, the basal joint of antennæ, the legs and the extreme edge of the prothorax and of the elytra flavescent; head impunctate; prothorax shaped as in *P. insuetus* and *P. crenato-striatus*, that is to say slightly narrower laterally in the posterior than in the anterior part and with the posterior angles not very sharp; the sides and base are also broadly punctured with the median part of the disk smooth, but these punctures are somewhat more closely set; the elytra are oblong with the sutural angle moderately sharp, punctato-striate, and the intervals quite plane, the third interval has one anterior and one median puncture; the two basal joints of the anterior tarsi of the male are not sulcate laterally.

This species is also very closely allied to *P. crenato-striatus*, from which it is distinguished by the plane intervals of the elytra, and the non-sulcate joints of the anterior tarsi in the male.

Length 9½ mm.; width 3¾ mm.

Hab. Natal (Durban). C. N. Barker.

PLATYNUS (ANCHOMENUS) INSOLITUS.

Black, very shiny; palpi and antennæ reddish, with the basal joint redder, legs flavescent; head impunctate; prothorax shaped as

in the two preceding species, that is to say, it is amplified laterally, angular in the median part with the posterior part slightly more narrowed than the anterior, the punctures cover a broader space along the sides and the base, thus restricting the smooth area, and the anterior part is nearly as widely punctured as the base, and these punctures are deeper and wider than in *P. emeritus* or *P. crenato-striatus*; the elytra are oblong, but somewhat acuminate from the third posterior part, the sutural angle being only moderately sharp; they are closely and deeply striato-punctate, the intervals are sharply tectiform, and the eighth interval as well as the marginal one are very closely and somewhat roughly punctate, the third interval has one anterior and one median puncture; the basal joint only of the anterior tarsi of the male is sulcate laterally; the episterna and the sides of the metasternum are deeply punctate; both sexes are alike.

Length 11 mm.; width $4\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

PLATYNUS (ANCHOMENUS) OBSEQUIOSUS, n. sp.

Palpi, labrum and legs, extreme edge of prothorax and of elytra flavescent; antennæ with the basal and the five ultimate joints flavescent, the intermediate ones fuscous; head impunctate; prothorax ampliate laterally in the middle with the posterior part slightly narrower than the anterior, and the median part hardly angular, the anterior, posterior and lateral parts are broadly covered with very closely set aciculate punctures, the median part of the disk is impunctate; the elytra are very shining and have a faint metallic tinge; they are oblong, not sub-acuminate in the posterior part, hardly broader across the humeral angles than the prothorax at its widest part, and with the shoulders not much sloping, strongly sinuate behind and with the sutural angle distinct, but not sharp, deeply punctulato-striate, with the intervals moderately convex, but sub-rectiform in the anterior part, and the third interval bears three punctures, an anterior one impinging on the third stria, a median, and a posterior one situated at about two-thirds of the length.

My example is a female. It is not unlike *P. crenato-striatus*, but the intervals of the elytra are not so costate, and as the shoulders are not so sloping, the prothorax looks broader, and the third interval bears three punctures instead of two.

Length $9\frac{3}{4}$ mm.; width 4 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

PLATYNUS (ANCHOMENUS) LATIUSCULUS, n. sp.

Black, elytra with an olivaceous-green metallic sheen, legs piceous-red with the tibiæ black, totally piceous-red, or entirely black, tarsi, palpi and the three basal joints of antennæ rufescent, the other antennal joints more or less deeply fuscous; prothorax sub-cordate, that is to say rounded and amplified from the anterior part to the median, and strongly sinuate thence to the posterior angle, posterior part of the disk very deeply depressed on each side of the base, the two posterior depressions and the sides are closely aciculato-punctate, the anterior discoidal part is impunctate; it is wider than long, and the outer margins which are slightly rufescent are strongly reflexed, especially in the posterior part; elytra broader than the prothorax at the base and with the shoulders not much rounded, parallel for half the length, then slightly amplified, and only moderately attenuated in the posterior part, with the sutural angle somewhat blunt, the intervals are plane and the striæ finely punctate, the third interval bears in the anterior part a puncture situated almost on the third stria, and a post median one impinging on the second stria; the abdomen and median part of the metasternum are ferruginous and impunctate, the lateral part of the latter and the episterna are closely punctate; the two sexes are alike, and the anterior tarsal joints are not sulcate in the male.

Resembles *P. natalensis*, Boh., but has a still broader facies.

Length 9-10½ mm; width 4-4½ mm.

Hab. Southern Rhodesia (Umtali, Salisbury). A. Bodong; G. A. K. Marshall.

GAZANUS, n. gen.

Mentum with a sharp median tooth, ligula very long, narrow, gradually widening towards the truncated apex, carinate longitudinally, paraglossæ not disunited from it, but longer, palpigera very long, inner lobe of maxillæ strongly falcate, densely bristly inwardly; palpi very long, last joint sub-fusiform, not acuminate at the tip; mandibles long, arcuate, plainly projecting beyond the labium; head elongated and with a long neck, lateral setæ of *Platynini*; antennæ long and with the joints 4th-11th compressed and broadly dilated somewhat in the manner of *Piezia* in the *Graphipterini*; prothorax strongly cordiform with the posterior angles sharply reflexed; elytra narrow, oblong, sub-pedunculate at the base, moderately sinuate behind, striate, the intervals with a series of equi-distant punctures; underside and legs as in *Anchomenus*.

GAZANUS ELEGANS, n. sp.

Bronze black, very shiny; the palpi, the three basal joints of antennæ and the legs are pale flavescent, but the anterior part of the femora and the tarsi are infusate; head deeply impressed longitudinally along the antennal ridge, impunctate on the centre and neck; prothorax strongly cordate with the outer margins plainly reflexed, especially the part forming the basal angle which is very acute, the median part of the disk is somewhat convex and hardly punctate, but the depressed lateral, anterior and posterior parts are sub-foveolato punctate, the basal part is especially rugose; scutellum punctate; elytra oblong, moderately sinuate in the posterior part, narrowly striate, the striæ extremely closely punctate, intervals plane and having each a row of elongated punctures separated from each other by a space nearly equal to their own diameter, and bearing each a somewhat long, erect black hair; underside glabrous like the head and prothorax; the three basal joints of the anterior tarsi are not grooved laterally, but the posterior ones are.

Length $9\frac{1}{2}$ mm.; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

FAMILY PAUSSIDÆ.

GEN. HYLOTORUS, Dalm.

HYLOTORUS SEBAKUANUS, n. sp.

Reddish-brown, moderately shining; head as broad as long, highly convex in the anterior part, and having there a deep triangular impression continued into a longitudinal sulcus reaching to beyond the raised part behind the ocelli, which are very minute, the head is plainly angular laterally and the eyes have a very prominent keel underneath, the antennæ are strongly cultriform and as long as the head which is not narrowed behind the eyes; prothorax only slightly longer than the head, very deeply constricted laterally, being really bi-partite, and deeply, although narrowly, excavated, the anterior part is sub-cylindrical, and very much more raised than the posterior, which is excavated in the manner of many species of *Paussus* and faintly tuberculate laterally; elytra sub-parallel, slightly wider at the truncate apex than across the base, faintly aciculate and glabrous; femora swollen, tibiæ broadly dilated.

Length 4 mm.; width $1\frac{1}{2}$ mm.

This species is at once distinguished from *H. hottentotus*, Westw.,

and *H. blanchardi*, Raffr., of which I have co-types, and also from *H. bucephalus*, Gyllh., as figured by Westwood, by the smaller size, the much longer antennæ, which resemble very closely those of *Paussus granulatus*, Westw., and especially by the bi-partite prothorax.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

FAMILY STAPHYLINIDÆ.

TRIBE ALEOCHARINI.

GEN. MYRMEDONIA, Erichs.

A². Antennal joints strongly compressed laterally.

Group of *M. REICHERTI*, Brauns.

termitobia; *termitophila*; *compransor*; *simplex*; *gravidula*.

A¹. Antennal joints not strongly compressed laterally.

B². Second abdominal segment of male armed with two spines

Group of *M. DISPAR*, Boh.

uncinata; *procax*; *puncticollis*.

B¹. Second abdominal segment of male simple.

C². Prothorax plainly impressed laterally along the outer margin.

Group of *M. LONGICORNIS*, Boh.

mima; *capicola*; *illotula*; *jucunda*; *gentilis*; *hirtella*.

C¹. Prothorax not impressed laterally.

conifera; *constritata*; *anthracina*; *gracilicornis*.

MYRMEDONIA TERMITOBIA, n. sp.

Testaceous-red, with the head black, and the lateral posterior part of the elytra fuscous, clypeus, palpi, legs, and antennæ testaceous-red; last joint of labial maxillary palpi very densely pubescent; frontal part bi-impressed, sparsely granular, and with a few scattered, short flavescent hairs; antennæ long, first joint flail-like, not compressed, second obconical, all the others except the apical one are of the same length, being nearly twice as long as broad, slightly narrower at the base than at the apex, flatly compressed longitudinally on each side for two-thirds of their length but dilated at the

apex, the compressed part is divided into two by a slight ridge, and if seen laterally it looks exactly like a sharp wedge, the last joint is one-third longer than the penultimate, compressed at both ends, but bulging in the centre, roundly elongated at the tip, all the joints are very briefly pubescent and bristly; prothorax sub-quadrate, narrower behind than in front, truncate in the anterior part, somewhat arcuate along the base and with both angles rounded, depressed laterally along the outer margins, plane in the disk, and having a distinct median longitudinal impressed line culminating in a transverse one in the median part of the base, the surface is extremely finely aciculate and covered with equi-distant, minute, very briefly setigerous granules, divided by an interval slightly wider than their own diameter; scutellum short, triangular; elytra broader and a little longer than the prothorax, and also granular, clothed with a flavescent, dense appressed pubescence; abdomen shiny, the four basal segments impunctate, and the second inermous in the male, the fifth segment is briefly pubescent on the apical part, and the last one somewhat roughly punctate and densely pubescent in the male, equally pubescent but less roughly punctate in the female, under side and legs closely punctate, densely pubescent; basal joint of hind tarsi very little longer than the second.

Length $8\frac{1}{4}$ –9 mm.; width $2\frac{1}{2}$ mm.

Found in a Termite's nest.

Hab. Southern Rhodesia (Umtali). A. Bodong.

Most of the species in which the intermediate antennal joints are shaped as in the present species have been met with in 'Termites' nests.

MYRMEDONIA TERMITOPHILA, n. sp.

Testaceous-red, with the head and clypeus, the elytra, with the exception of the base, and the dorsal part of the three penultimate abdominal segments fuscous, the three basal joints of the antennae are rufescent, the others clothed with a chestnut-brown pubescence; head quadrate, sparsely punctulate, each puncture bearing a very minute hair, there is a very conspicuous tubercle between the two antennal basal joints, which are very long and swollen at tip, the second is short, the third long, slender at the base, triangularly dilated at the tip, the fourth to tenth are sharply conical, longer than broad at apex, except the two penultimate ones, and the last is as long as the two preceding taken together, oblong, but moderately acuminate at the tip, all these joints are compressed in the manner of *M. termitobia* but less strongly, and more angular outwardly at

tip than inwardly, they are equally bristly; prothorax sloping slightly on each side in the anterior part, narrower across the straight base than across the apex, with the sides straight and the fore and hind angles rounded, the upper sides are not much depressed, the median impressed line is distinct in the posterior part only of the disk, which is sparsely punctulate and pubescent; scutellum triangular, well developed; elytra wider at the base than the prothorax at its broadest part, more densely punctate and with the flavescent pubescence somewhat longer than on the prothorax; abdominal segments impunctate and glabrous on the upper side except the last segment, which is pubescent, in the male the second one is broadly laminate and is produced as two parallel spines, each equi-distant from the sides and from the middle and reaching only the median part of the length of the third segment, in the female (?) this lamina is equally developed, but straight and simple, and in the male the penultimate segment has a median, not much raised longitudinal keel; under side and legs pubescent; the two apical abdominal segments are infusate, and the basal joint of the hind tarsi much longer than the second.

Length 7 mm.; width 2 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

Found in a Termite's nest.

MYRMEDONIA COMPRANSOR, n. sp.

Male: Labrum, prothorax, antennæ, the three basal segments of the abdomen rufescent, head black, elytra deep fuscous, with the suture and a broad triangular humeral patch reddish, legs flavo-rufescent; frontal part with a conspicuous longitudinal, very highly raised keel, the head is very short behind the eyes and sparingly punctulate and pubescent, the long antennæ could reach the apex of the prothorax, they are shaped as in *M. termitobia*, but the compressed joints are not as elongated or as narrowed at the base, and are thus more regularly triangular, they are also not quite so compressed, but equally pubescent and with long bristles at apex; prothorax nearly as broad as long, sinuate laterally in the posterior part, the angles are rounded, the base is slightly more arcuate than the anterior margin, the sides of the discoidal part are very little depressed, the disk very slightly convex, the median line plain in the hind part, and it is minutely punctured and very briefly pubescent; elytra broader at the shoulders than the prothorax, slightly amplified laterally behind, more deeply punctured than the prothorax, and

with the pubescence longer ; upper side of abdomen glabrous, except the last segment, shiny, impunctate, the second segment bears two short spines on the edge of the straight lamina, each one equi-distant from the outer side and the median part, on the third segment there is a lateral, small tubercle, and four small, and granule-like, set two by two, in the middle of the sixth, the last one is pubescent and has at the apex a broad and deep cupuliform impression.

This species is easily distinguished from all the South African ones by the extraordinary longitudinal keel, or laminate tubercle of the frontal part, and the cupuliform impression of the last segment of the male.

Length 9 mm. ; width $2\frac{1}{5}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

MYRMEDONIA SIMPLEX, n. sp.

Head black, with the labrum piceous, prothorax red ; elytra black, with the basal part narrowly rufescent, abdomen black, with the two basal abdominal segments rufescent, legs flavescent, antennæ chestnut-brown, with the three basal joints flavescent and of the normal shape, 4-9 sharply conical, compressed at the base, slightly longer than broad, 9-10 of equal width and length, 11 hardly longer than 9 and 10 taken together, slightly narrower and oblong, frontal part with an anterior, strongly convex protuberance, punctulate and briefly pubescent ; prothorax longer than broad, slightly sinuate laterally, narrower at base than apex with both angles rounded, the sides are not depressed, the discoidal part is slightly convex, the very briefly pubescent punctures are not very closely set, the median longitudinal line is obliterated, and there is a small, round impression in the centre of the base ; upper part of abdominal segments glabrous, shiny, except the last one which is pubescent, the three penultimate ones have a marginal row of five setigerous punctures, and the second segment is simple.

Length $6\frac{1}{2}$ mm. ; width 2 mm.

Hab. Natal (Newcastle). E. Hunt.

MYRMEDONIA UNCINATA (Fauv. *in litt.*), n. sp.

Male: Testaceous-red, or occasionally pale testaceous, fifth and sixth abdominal segments fuscous, frontal part of head black, and with a conspicuous compressed tubercle in the anterior part, vertex finely punctulate and briefly pubescent ; antennæ long, reaching to about the median part of the elytra, first joint long, flail-like, second

shorter than the third, which is slender at the base and triangularly dilated at the apex, fourth to tenth obconical, the fourth and fifth are slightly more triangular than the others, but all are slightly broader than long, and not closely set, eleventh slightly longer than the two preceding taken together, slightly narrower, sub-oblong, and slightly tapering from the base to the rounded apex; prothorax slightly sloping on each side towards the rounded anterior angle, the sides are plainly sinuate, the basal part, the angles of which are also rounded, is nearly straight, the disk is hardly convex, but the sides are depressed along the outer margins, the median impressed longitudinal line is distinct, the punctuation is very close, and the pubescence very short; elytra wider than the prothorax at the shoulders, a little amplified in the posterior part, the punctures are deeper than those on the prothorax, and the pubescence seemingly denser, abdominal segments glabrous and impunctate, the second one is produced into a lamina, the apical edge of which is straight, and the angles produced into two sharp parallel spines varying in length and reaching either the apical margin of the third or of the fourth segment, on the penultimate segment are a few faint, minute tubercles, the apical one is not tuberculate, and it is slightly emarginate in the centre, with the angles sharp.

Differs from *M. dispar*, Boh., by the obconical instead of transverse intermediate antennal joints, the impunctate abdomen, and the shape and sculpture of the two ultimate abdominal segments.

Length 6 mm.; width $1\frac{3}{4}$ mm.

Hab. Cape Colony (Knysna). L. Péringuey.

MYRMEDONIA PROCAX, n. sp.

Male: Testaceous-yellow, with the head and the fourth and fifth abdominal segments black, antennæ, with the exception of the three basal joints, chestnut-brown; head with a broad transverse depression, sub-carinate on the vertex, and having a conspicuous round sub-rufescent prominence between the antennæ, moderately produced behind the large eyes, sparingly punctulate and briefly pubescent; antennæ hardly longer than the head and prothorax taken together, the joints 3-9 are strongly transverse, being twice as broad as long, not closely set, briefly pubescent and setulose, the last one is not quite as long as the three preceding taken together; prothorax as long as broad, with the anterior and posterior angles moderately rounded, hardly sinuate laterally, deeply but not closely punctured, sparingly pubescent, not impressed laterally along the base, but

having a fairly distinct median longitudinal impressed line; elytra as deeply punctured as the prothorax, but the punctures are more closely set and the pubescence is denser; upper side of abdominal segments glabrous, very closely and deeply punctate, the apical margin of the second segment is laminate with the angles produced into an arcuate spine reaching the apical margin of the third segment, the ultimate one bears four small tubercles.

This species differs from *M. uncinata* in the still shorter antennæ, the intermediate joints of which are also more transverse, the prothorax nearly straight laterally, and the deeply punctate surface of the upper side of the abdominal segments.

Length 6 mm.; width $1\frac{1}{5}$ mm.

Hab. Cape Colony (Malvern). Rev. J. A. O'Neil.

This species is not unlike *M. terminata*, Boh., but more massive. the intermediate antennal joints are wider in proportion to their length and not set so close to each other as in *M. terminata*, the second abdominal segment of which is simple in the male.

MYRMEDONIA PUNCTICOLLIS, n. sp.

Male: Testaceous-red, with the upper side of the abdomen somewhat ferruginous, head fuscous, elytra with a sutural, broadly triangular, light fuscous patch, antennæ ferruginous, with the exception of the three basal joints which are rufescent, frontal part convex in the anterior part, very plainly impressed in the vertex, very little prolonged behind the eyes; antennæ reaching to about the median part of the prothorax, the three basal joints are normal, fourth and fifth obconical, sixth to tenth transverse, sub-moniliform, set somewhat close to each other, eleventh equal in length to the two preceding taken together, slightly tapering but not acuminate at the tip, those joints are densely pubescent and setulose; prothorax plainly narrower in the posterior than in the anterior part, with the outer angles rounded, the hind ones more broadly than the anterior, sides slightly sinuate laterally towards the posterior angle, somewhat convex in the centre not depressed laterally, glabrous, extremely finely aciculate but also punctulate, the punctures fine and somewhat broadly separated, and in addition to these there are on each side two conspicuous setigerous pores, the sub-median is situated nearer the outer margin than the centre of the disk, the other is situated slightly past the centre, but nearer to it than to the outer margin; elytra broader than the prothorax, sparingly punctulate as in the prothorax, very sparsely pubescent, and

having each two rows of four puncture-like pores, one along the suture, the other close to the declivous part of the sides, and two or three scattered punctures on the disk, these punctures are somewhat indistinct; scutellum very small; upper side of abdomen glabrous, very finely aciculate, and having on each segment two transverse rows of five broad setigerous punctures, the second segment is not sinuate at apex, and is provided with two sharp incurved spines reaching only the median part of the third segment, the apical segment has two series of elongated tubercles.

Length 7 mm.; width $1\frac{4}{5}$ mm.

Hab. ? Southern Rhodesia.

This species is easily distinguished by the setigerous pores on the prothorax and on the upper side of the abdomen.

MYRMEDONIA MIMA, n. sp.

Male: Straw-colour, shiny, very briefly pubescent, head darker, frontal part bulging in the anterior part and having a very broad, round depression on the vertex, sparingly punctulate and briefly pubescent; antennæ reaching the apical part of the elytra, second joint two-thirds the length of the third, fourth to tenth nearly as long as broad but in the shape of a broadly truncate cone, and fitting closely to each other, eleventh almost as long as the two taken together, they are briefly pubescent but not setulose at the tip; prothorax slightly broader than long, with the anterior and posterior angles rounded, slightly narrower at the base than at the apex, nearly straight laterally, deeply depressed obliquely along the outer margin, narrowly transversely along the base and having also a broad central impression on the disk, this latter, however, may be accidental, and moderately closely punctulate; elytra slightly broader than the prothorax at the base, truncate at the apex, the punctures are similar to those of the prothorax, and the pubescence is alike; the first four abdominal segments are glabrous and impunctate, and the second simple, the fifth is punctulate laterally and also along the apical margin, and has on each side a longitudinal groove edged by a keel, the last one is pubescent and has an apical impression.

This species is closely allied to *M. longicornis*, Boh., described from a female example; the main difference consists in the shape of the antennal joints, which are much shorter, broader, and closely set; they resemble more those of *M. proluxa*, Boh., which is, however, a different species.

Length 5 mm.; width $1\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

MYRMEDONIA CAPICOLA, n. sp.

Male : Frontal part, elytra and antennæ with the exception of the three basal joints black, prothorax and legs reddish-brown ; in some examples, however, the elytra and the intermediate antennal joints are lighter, the frontal part only is black, and the abdominal segments deeply infusate ; frontal part not depressed or impressed ; antennæ long and somewhat robust, but not reaching quite the apex of the elytra, the second joint is almost as long as the third, the others are conical, as broad at the apex as long, the ultimate one is only moderately acuminate and not as long as the two preceding ones taken together ; prothorax transverse and with the base only slightly wider than the apex, the anterior angle is not much rounded, and the posterior is quite plain, there is a moderately deep longitudinal supra-marginal lateral impression on the posterior part, a narrow transverse one along the base, and an impunctate median longitudinal line with a small, faint, round impression on each side in the median part, the rest of the surface is not closely punctulate and is slightly pubescent ; elytra slightly broader at the shoulders than the prothorax, more closely punctate and much more densely pubescent ; upper part of the abdominal segments shiny, but punctulate along the apical margin and sides, each puncture bearing a grey appressed hair, the second segment is simple, but the penultimate one has a supra-lateral deep groove on each side.

Length 4-5 mm. ; width $1\frac{1}{4}$ - $1\frac{1}{2}$ mm.

Hab. Cape Colony (Cape Town, Stellenbosch). L. Péringuey.

MYRMEDONIA GENTILIS, n. sp.

Male : Head very shiny, sparsely pubescent, elytra and abdomen, with the exception of the two basal segments, black, antennæ, thorax, legs, and the two basal abdominal segments flavo-rufescent ; frontal part with a strong prominence in the anterior part and a deep, round occipital pit, indistinctly punctate, the punctures scattered and bearing a long, appressed greyish hair ; antennæ reaching almost the apical angle of the elytra, second joint as long as the third, fourth to ninth slightly conical and almost as long as broad, tenth transverse, eleventh somewhat short, being only twice as long as the penultimate, all these joints are not set close to each other, they are finely pubescent and briefly setulose at apex ; prothorax broader than long, and plainly narrower at the base than at the apex, the anterior angles are normally rounded, but the posterior ones are distinctly acuminate and dentiform and the base arcuate,

the outer sides are sinuate behind, the lateral part of the disk is depressed, there is a broad basal impression with a median impressed line above the base, and the surface is finely and remotely punctulate, each puncture bearing a long greyish hair; elytra punctulate like the prothorax but the pubescence is longer; abdominal segments shiny, glabrous, except the last one, which is pubescent, second one simple.

Length $3\frac{1}{2}$ mm.; width 1 mm.

Hab. Natal (Frere). G. A. K. Marshall.

MYRMEDONIA JUCUNDA, n. sp.

Reddish, with the frontal part, a broadly triangular patch extending from the shoulders of the elytra to the apex of the suture, and the four alternate abdominal segments black, it is clothed all over with a dense greyish pubescence; frontal part simple in both sexes, deeply but not very closely punctate; antennæ reaching beyond the humeral part of the elytra, second joint shorter by one-third than the third, all the others are obconical and increase gradually in width, the two penultimate ones being transverse, and the last one not as long as these two taken together, the intermediate joints from the fourth to the tenth inclusive are ferruginous, but the apical one is as reddish as the three basal ones; prothorax broader than long, broadly rounded laterally in front, slightly sinuate in the posterior part, the outer angles of which are plainly sharp, the disk is impressed obliquely laterally, and deeply so in the centre of the base which is arcuate, this impression is continued as a longitudinal impressed line, which disappears however in front, the surface is very deeply and closely punctate; elytra plainly broader at the shoulders than the prothorax at its widest part, covered with deep, somewhat scabrose punctures, which are slightly denser in the sutural dorsal part than on the sides; all the abdominal segments are very closely and deeply punctate and briefly pubescent, the second segment is simple in the male, but the last one is broadly excavated at the apex.

Length 5 mm.; width $1\frac{1}{2}$ mm.

Hab. Cape Colony (Dunbrody, Enon). Rev. J. A. O'Neil.

MYRMEDONIA GRAVIDULA, n. sp.

Testaceous-yellow, with the head infuscate, clothed on the head, prothorax and elytra with a short, dense, appressed flavescent pubescence, head with a conical elevation in the anterior part of the frontal part which is punctulaté, and the pubescence is not quite

so dense in the occipital part as on the prothorax; antennæ long, first joint flail-like, second and third long, conical, fourth to tenth short, obconical, as broad across the apex as long, ultimate joint a little longer than the two together, oblong, and compressed, all the joints are densely and very briefly pubescent, and without bristly hairs; prothorax broader than long with both the anterior and posterior angles rounded, and the sides slightly amplified, more deeply arcuate along the base than in the anterior part, depressed along the outer discoidal part, especially behind, moderately plane on the disk, and with only a faint impressed, median longitudinal line, and without any distinct transverse impression above the base; scutellum triangular, short; elytra slightly narrower at the base than the prothorax at its widest part, and longer with the shoulders more rounded than the outer apical margin, closely punctulate; abdominal segments sparingly punctulate and sparsely pubescent, but having a series of distinct setigerous punctures along the apical margin, ultimate one simple, truncate; under side and legs densely pubescent; hind tarsi very long, basal joint nearly twice as long as the second.

Length 8 mm.; width 3 mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

MYRMEDONIA ILLOTULA, n. sp.

Testaceous-yellow, with the frontal part and the five penultimate abdominal segments black, antennal joints with the exception of the three basal ones, sub-ferruginous; elytra with a broad but somewhat faint apical fuscous patch; frontal part simple, space between the antennæ very slightly raised, punctuation and pubescence very scattered; antennæ reaching almost to the apex of the elytra, somewhat robust, the intermediate joints are broadly conical, short, being slightly wider at the tip than long, and set moderately close, the ultimate one is not longer than the two preceding taken together; prothorax broader than long, with the sides sinuate and the posterior angle not rounded, the anterior one being only slightly so, the base is narrower than the apex and more arcuate, there is a juxta marginal longitudinal impression on each side of the posterior part, and a small transverse impression along the base, the posterior part of the lateral margins seems reflexed owing to the adjoining lateral impression, and the surface is briefly but densely pubescent; the elytra are deeply and closely punctate and densely pubescent; the surface of the upper part of the abdominal segments is almost

glabrous and sparingly punctulate except the last one which is densely hairy, and the second segment is simple.

This species is not unlike in general appearance a minute example of *M. gravidula*, but the shape of the prothorax is quite different.

Length 4 mm. ; width $1\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

MYRMEDONIA HIRTELLA, n. sp.

Straw-colour, with the antennæ and the frontal part more darkly flavescent; frontal part with a transverse impression in front of the antennæ, and a broadly triangular tubercle between them, the eyes are very large, the surface is very sparsely punctulate and pubescent; antennæ very long and massive considering the size of the insect, second joint one-fourth shorter than the third, fourth to ninth in the shape of a broadly truncate cone, slightly wider at apex than at base, set close to each other, eleventh as long as the two preceding ones taken together, these joints are very briefly pubescent, but not setulose at the apex; prothorax broader than long, and with the anterior and posterior parts conspicuously broadly rounded, there is a deep, broad depression extending along the outer sides and continued along the base, and on the surface are scattered long, bristle-like setæ; elytra broader than the prothorax at the base, and much more so at the apex where they are somewhat arcuately truncate, on the surface are scattered a few punctures bearing a long, partly decumbent whitish bristle; the basal five segments of the abdomen are sparsely punctulate, each puncture bearing a minute hair and on the sides are long black upright bristles which are also found on the lateral part of the abdomen, these bristles are more numerous on the sixth segment, and they are whitish and more setuliform on the last one.

A very distinct species.

Length $3\frac{1}{2}$ mm. ; width $1\frac{1}{6}$ mm.

Hab. ? Natal.

MYRMEDONIA CONIFERA (Fauv. *in litt.*), n. sp.

Male: Frontal part black, labrum, the three basal antennal joints and the legs rufo-flavescent, prothorax rufescent, elytra reddish-brown, abdomen testaceous with the three penultimate segments black, antennal joints other than the three basal rusty-brown, but the apical part of the last is flavescent; frontal part with a large tubercle above the epistoma, but with the occipital part not im-

pressed, it is very finely aciculate, sparingly punctulate, and bears a few short hairs; antennæ reaching to about the median part of the elytra; second joint half the length of the third, fourth to tenth subquadrate being slightly wider than long, well separated from each other, not increasing much in width, eleventh oblong-acuminate, as long as the two preceding taken together, briefly pubescent, and only moderately setulose at tip; prothorax as broad as long, slightly sinuate laterally, with the posterior angles rounded, but less broadly than the anterior, very faintly impressed laterally but not along the base, and having a plain median longitudinal line, the surface is very finely aciculate, and bears somewhat remote briefly setigerous punctures; elytra plainly wider at apex than at base where they are slightly wider than the prothorax at its widest part, very finely aciculate and having also setigerous punctures divided from each other by an interval equal to twice their diameter; abdominal segments shiny and glabrous on the upper side except the last one which is punctulate and pubescent, the fourth and fifth segments have, however, a double row of four setigerous punctures.

Length $4-4\frac{1}{2}$ mm.; width $1\frac{1}{2}$ mm.

In colour this species resembles *M. simplex*, but it is smaller, and the shape of the antennal joints differs greatly.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

MYRMEDONIA CONSTRICTATA, n. sp.

Female? Completely fuscous-black with the exception of the palpi, labrum, the three basal antennal joints and the legs, the other joints of the antennæ are rusty-brown, but the apical joint is flavescent at tip; and the prothorax has a faint tinge of piceous-red; longer than the preceding species, but differing in colour only; the shape of the antennal joints is identical, the frontal part has also an anterior tubercle, the sculpture of the prothorax and elytra is the same.

This may prove to be the female of *M. conifera*.

Length 7 mm.; width $1\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

MYRMEDONIA ANTHRACINA, (Fauv. in litt.), n. sp.

Black with the antennæ and the tarsi dark rusty-brown, almost fuscous, head, prothorax and elytra clothed with a plainly visible greyish pubescence; frontal part simple, head deeply punctate,

and greatly produced behind the eyes; antennæ reaching beyond the humeral part of the elytra and somewhat massive, the second joint is only slightly shorter than the third, the fourth quadrate, the fifth to ninth almost quadrate, transverse, the tenth is more transverse than the preceding ones, all of them are well separated from each other, and the last one is not equal in length to the two penultimate taken together; the prothorax is longer than broad, slightly sinuate laterally in the posterior part, the base is arcuate and narrower than the apex, the posterior angles are not as rounded as the anterior, the posterior lateral margin is not impressed, there is a basal transverse impression, and the surface is very deeply and closely punctate, the punctures being divided by a space equal to their diameter; elytra more closely punctured than the prothorax, and more densely pubescent; upper part of abdominal segments glabrous, except for a marginal series of remote setigerous punctures, and shiny, except the last one which is scabrose punctate in the male and somewhat pubescent; third segment of male simple.

Length 5 mm.; width $1\frac{1}{4}$ mm.

Hab. Cape Colony (Cape Town). L. Péringuey.

MYRMEDONIA GRACILICORNIS, n. sp.

Head and prothorax testaceous-red, elytra testaceous-red or partly infusate, abdomen ferruginous with the two abdominal segments black, antennæ light ferruginous with the three basal joints and the legs flavescens; frontal part of male slightly depressed in the anterior part of the vertex, the impression edged by a slight transverse keel between the point of insertion of the antennæ, simple in the female, deeply but not closely punctate on the occipital part, but not in the anterior, and somewhat densely pubescent; antennæ long, reaching nearly the apex of the elytra, second joint one-third shorter than the third, fourth to fifth elongate, slender, sixth to eighth conical, ninth sub-quadrate, tenth transverse, broader than ninth, eleventh sub-pyriform, sharply acuminate, slightly longer than the two preceding ones taken together, the five ultimate joints are not set close to each other, and they are all setulose at apex, the setæ being long; prothorax as long as broad, narrower at the base than at the apex, plainly sinuate laterally in the posterior part the angles of which are as broadly rounded as the anterior, the outer sides are not depressed, but there is a transverse impression above the base, and the surface is deeply but not closely punctate, and pubescent; elytra broader than the prothorax at the base,

slightly amplified at apex and with the punctures similar to those of the prothorax, but deeper and with the pubescence longer; abdominal segments impressed transversely along the base and punctulate there, the penultimate one is not so impressed but is punctulate along the base and on the sides, and the last one is punctulate and pubescent all over. This species differs from the other South African ones known to me by the slenderer four intermediate antennal joints.

Length 5-5½ mm.; width 1¼ mm.

Hab. Cape Colony (Dunbrody). Rev. J. A. O'Neil.

FAMILY SCARABÆIDÆ.

TRIBE COPRINI.

GEN. ONTHOPHAGUS, Latr.

ONTHOPHAGUS PLACENS, n. sp.

Male: Black, very shiny, glabrous on the upper side, but with the epipleural fold punctulate and with a few fulvous hairs, prosternum hairy, legs sparingly hairy, clypeus semicircular but broadly although not deeply emarginate in front, strongly plicate transversely, separated from the frontal part by a transverse, not much raised keel extending from one gena to another, far in front of the eyes, frontal part produced into a long, sharp horn sloping backwards, triangularly laminate for half the length, slender and acute thence; genæ wide, upper part of the eyes very narrow; prothorax with a marginal fold all round, quite rounded laterally behind, impunctate and with the median part depressed from the anterior margin to two-thirds of the length; elytra shorter than the prothorax, punctate-striate with the intervals plane and impunctate; pygidium much broader than long, faintly punctulate, glabrous; sides of the metasternum and episterna with scattered piligerous punctures; abdomen punctulate laterally along the edge of the segments, femora with only a few setigerous punctures; anterior femora tridentate outwardly and not distinctly serrate above the teeth, inner spur of anterior tibiæ strongly bent inwardly at tip.

Length 10 mm.; width 6¼ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

This species is very distinct.

ONTHOPHAGUS PRÆTORTUS, n. sp.

Dark coppery-bronze, very little shiny, antennæ dark bronze with the club black; clypeus semi-circular, but slightly obtuse in front and with the margin very slightly reflexed, deeply punctate with the punctures coalescing along the margin, deeply depressed in the central part in front of a highly raised transverse clypeal lamina which is slightly arcuate but produced on each side into a sharp, projecting angular process, and situated between the median part of the eyes, there is no frontal carinule; prothorax deeply sinuate laterally behind and with the posterior angles distinct, highly convex, retuse in front, bi-impressed in the middle of the anterior part, the two impressions surmounted by a small but very distinct tubercle, and having in the centre a very deeply emarginate, almost bi-tuberculate ridge, it is covered with very closely set scabrose punctures in the median part of the disk, and with granules on the other parts of the surface, and clothed with a very short, silky, whitish pubescence, the base is plainly grooved, and the edge of the margin has a series of punctures; elytra not wider than the prothorax at its broadest part, striæ narrow and shallow, intervals plane, closely punctured and pubescent; pygidium nearly as broad as long, covered with broad, deep, nearly equi-distant punctures, and clothed with a dense greyish-white silky pubescence; under side moderately pubescent; inner spur of anterior tibiæ long, the basal part is directed inwardly almost at right angles with the apex of the tibia, and then curves strongly outwards.

Allied to *O. dispar*, but different in colour and sculpture; the shape of the inner spur of the anterior tibiæ of the male is very singular, and unlike that of any other species of *Onthophagus* known to me.

Length 7-9 $\frac{1}{4}$ mm.; width 4 $\frac{1}{2}$ -5 $\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

ONTHOPHAGUS DECEDENS, n. sp.

Head and prothorax light bronze, moderately shiny, the latter with a flavescent lateral patch, broad in the anterior part, narrower behind and not reaching the posterior angle, the elytra are light testaceous with the striæ fuscous, pygidium and pectus bronze, the legs sub-testaceous, and the abdomen darker than the pectus; it is covered with a short, very dense greyish pubescence longer in the posterior part of the elytra, and very long and silky on the pygidium; clypeus slightly elongated, rounded in front with the anterior margin reflexed, covered with deep, transverse setigerous punctures separated

by raised, irregular folds, in the male the scabrose-punctate frontal part is produced from the raised frontal suture into a triangular lamina dividing at the tip into two divaricating sharp horns, and having a short triangular tooth in the centre, the two teeth barely reach the height of the anterior part of the prothorax, the median anterior part of which is sub-vertical and impunctate along the base and also on each side of the declivity, but otherwise covered all over with very closely set granules denser and smaller on the centre of the disk than on the sides, the upper part of the anterior declivity is simple, in shape the prothorax is slightly broader than long, finely carinate along the base and the posterior angles are rounded; in the female the clypeus is less semicircular, the clypeal suture is arcuate and sharply carinate, the frontal part closely granular, and there is a slightly arcuate lamina-like ridge with sharp outer angles situated between the eyes but stopping at some distance from them; the anterior part of the prothorax is not as highly raised as in the male and is therefore proportionately less declivous, but it is plainly bituberculate; the intervals of the elytra are plane and very closely punctured; the closely punctate pygidium is nearly as broad as long in both sexes; in the male the inner spur of the anterior tibiæ is nearly straight, but it is slightly inflexed inwardly at tip in the female.

Mons. d'Orbigny informs me that this species is moderately closely allied to *O. pictipodex*, D'Orb., but that the armature of the head is very different; he thinks, however, that his *O. pictipodex* was described from female examples.

Length $8\frac{1}{2}$ – $9\frac{1}{2}$ mm.; width 5 – $5\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

ONTHOPHAGUS SERENUS, n. sp.

Black, shiny, with extremely minute hairs in the punctures of the head and prothorax, hardly pubescent underneath, club of antennæ black; clypeus deeply incised in front, and with the angles very sharp and reflexed, genæ triangular, projecting, there is no distinct clypeal suture or keel, but a slight carinulate elevation reaching the two genæ, the frontal part is simple, but there is a distinct, oblique supra-ocular ridge (\mathcal{J}); the prothorax is broader than long, rounded laterally, the outer margins are not highly carinate and the base has no distinct fold, the surface is covered with sub-contiguous cicatricose punctures, coarser on the sides than on the disk; elytra longer than the prothorax with the striæ distinct and the plane intervals finely granulose; pygidium broader than long, very closely punctulate, and

glabrous; inner spur of anterior tibiæ curved inwards at apex, in both sexes, but that of the male is thicker.

This species is allied to *O. lacustris*, Har., and *O. discretus*, Pér., but it differs in the incised clypeus, and also in having the intervals on the elytra normally granulose instead of being longitudinally shagreened as in the former, or sub-scabrose-punctate as in the last named species.

Length $7\frac{1}{2}$ mm.; width $4-4\frac{1}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe; Enkeldoorn). D. Dods; J. F. ffoliot Darling.

ONTHOPAGUS RHYNCHOPHORUS, n. sp.

Male: Black, moderately shiny, with extremely minute hairs in the punctures of the head, prothorax and elytra; antennal club reddish-brown; clypeus parabolic but produced in the centre into a sub-quadrate, strongly reflexed laminate process projecting far beyond the margin, the genæ are rounded, there are no traces of clypeal suture, but in the frontal part there is a very slightly raised, short, transverse fold interrupted in the centre, and situate midway between the eyes, and ending far from them, the greater part of the clypeal area is transversely folded, and the rest of the surface, as also of the frontal part, is deeply and closely punctate; prothorax broader than long, simple, without any basal fold, covered with moderately deep punctures, slightly elongated and divided on the median discoidal part by intervals about equal to their diameter, but larger and more cicatricose on the sides; elytra longer than the prothorax, finely striate with the intervals plane, and having each three or two series of fine punctures; pygidium closely punctulate, glabrous, broader than long, and with a basal marginal fold; inner spur of anterior tibiæ nearly straight, with the point slightly slanting inwards, but not hooked.

Length 8 mm.; width 5 mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

Mons. d'Orbigny informs me that this species is somewhat allied to *O. rostratus*, Orb., which differs, however, by the shape of the prothorax, as well as by the sculpture.

GEN. MILICHUS, Péring.

MILICHUS RHODESIANUS, n. sp.

Male: Light bronze, briefly pubescent, not much shiny, maculated irregularly with darker bronze on the prothorax which has in addition three bright shiny patches in the anterior part at the top of the

declivity; the elytra are occasionally testaceous, irregularly tessellated with bronze, antennal club flavescent; clypeus produced diagonally laterally, deeply and broadly emarginate in front, with the angles of the emargination distinct, but not sharply reflexed, the first clypeal carina is triangular, sharply raised, and the median longitudinal keel is very short and does not connect the first clypeal one with the highly raised, sub-arcuate second clypeal carina which overhangs slightly the clypeus, and reaches on each side the inner angle of the genæ the anterior margin of which is also carinate, but not as highly, and along the base of the frontal part there is an interrupted slightly raised line with occasionally a minute tubercle in the centre above it; prothorax declivous in front in the male, not carinate above the declivity but having on each side of it a depression edged by a short, transverse ridge set above the shiny space, it is not much amplified laterally, although it is broader than long, the hind angles are rounded, the basal margin has no fold, it is covered in the median discoidal part by deep, round punctures, the slightly raised intervals of which are very narrow, these punctures are slightly wider on the sides than on the disk; elytra longer than the prothorax and about equally broad, plainly striate with the intervals nearly plane and filled with closely set granules; pygidium nearly as broad as long, deeply and closely punctate, the intervals separating the punctures forming a sort of reticulation near the basal part; metasternum very closely punctate; inner spur of anterior tibiae nearly straight.

This species differs from *M. apicalis*, Fahr., chiefly by the more highly raised and retuse prothorax.

Length 6-7 mm.; width 4-4½ mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

Mons. d'Orbigny (Annal. Soc. Ent. France, 1902, p. 20) does not consider that the genus *Milichus* should be retained, even as a sub-genus, although admitting that the two species then known should form a small group of the *Onthophagus*, near *Caccobius*. I cannot agree with him, however reluctantly, because the presence of a clypeal carina running parallel to the margin in addition to the normal clypeal keel, a character unknown in the endless number of species of the genus *Onthophagus*, is certainly more important than the fact of the anterior tibiae being truncate at the apex, turning an *Onthophagus* into a *Caccobius*, or if the body is entirely glabrous into a *Cacconemus*, &c. The presence of additional clypeal carinae has proved of great value in the classification of the *Sericinae* and *Melolonthinae*, and has, according to my views, too much importance not to be taken into account.

GEN. DIASTELLOPALPUS, Lansb.

DIASTELLOPALPUS ORBIGNYI, n. sp.

Male: Black, shiny, almost glabrous on the upper side, pectus, legs and under side of prothorax clothed with fulvous hairs, pygidium and abdominal segments with shorter sub-flavescent ones; antennæ yellow with the exception of the three basal joints which are piceous-red; clypeus broadly arcuate in front with the margin entire and reflexed, genæ hardly prominent, in the centre, in a line with the suture at the junction of the genæ there is a high, laminate, sharply and broadly triangular keel the moderately rounded basal angles of which are continued towards the frontal part as a sloping ridge set at right angles with the clypeal carina and partly enclosing two deep impressions the separating wall of which is continued as a short median ridge reaching almost a transverse high laminate ridge set on the vertex, truncate at both ends, reaching the median part of the eyes and longer therefore than the clypeal which is widely separated from the genæ; the surface of the clypeus is strongly transversely plicate, the frontal part and the genæ roughly punctate; the prothorax is broader than long, almost vertical in front, and with the anterior angles much produced, deeply excavated on each side, *Copris*-like, while the central part of the apex projects as a broadly triangular ridge the outer angles of which are continued vertically also as a sharp ridge strongly dentate towards its median part, the lateral anterior excavation has a sharp, short tooth on the outer part, close to the lateral smooth impression; the two lateral anterior excavations, and also the median space edged by the two vertical ridges are sparingly and not deeply punctate, on the upper part the anterior projection is granular, the sides scabrose, the posterior median part is not closely punctate, and the long, hind depression along the sides and part of the carinate base is faintly punctate, there is no median smooth longitudinal line; elytra shorter than the prothorax and equally broad at their widest part, plainly striate, intervals deeply and closely punctate, each puncture bearing a very minute black hair, alternate intervals wider than the others; pygidium longer than broad, covered with punctures similar to those on the elytra, but bearing each a much longer and fulvous hair.

Mons. d'Orbigny informs me that this species comes very near *D. tridepressus*, Orb., but differs by the more shiny upper side, the very short setose hairs on the elytra, the clypeal carina curving behind at each end, and the frontal part with a depression on each

side of the angle thus produced, the prothorax with the anterior upper ledge angular in the centre, and the two vertical carinae separating the three excavations of the anterior part dentate in the middle.

Length 23 mm.; width 15 mm.

Hab. Southern Rhodesia (Gasaland and Umtali). G. A. K. Marshall; A. Bodong.

FAMILY PTINIDÆ.

GEN. PTINUS, Linn.

PTINUS ELEGANS, n. sp.

Black, with the legs, the under side, the head, and the sides of the prothorax covered with a cretaceous squamose indumentum which on the elytra form three transverse bands bi-sinuate on each side, a sub-basal, a post-median and an apical one, extending from side to side, the two former unite sometimes in the median dorsal part, and the inner part of the antennæ is sprinkled with similar scales; head impunctate and having a fine longitudinal median sulcus; antennæ robust, briefly setulose, basal joint somewhat thick, a little obliquely truncate outwardly at tip, second set in the obliquely truncate part, and a little smaller than the following which are gradually lengthening, the ninth however not being much longer than the third; the two apical ones are missing in my example; prothorax short, transversely impressed in the anterior part, with the anterior margin raised and the transverse impression deeply and irregularly pitted; in the centre are two very high longitudinal ridges sloping in front, truncate behind and reaching past the middle, the broad, smooth sulcus walled by the vertical ridges is continued as a triangular smooth space reaching the base, and edged on each side by two slightly reddish carunculate tubercles, this basal part is constricted, and the outer angle is sharp and projects outwardly; the outer part of the two ridges which are very briefly and sparingly setulose is smooth, and the sides in front of the lateral tubercles have a few granules; scutellum squamose; elytra elongate, nearly parallel, rounded behind and with the humeral angles very distinctly raised, they have deep striæ filled with almost foveolate punctures divided by tectiform very briefly setulose intervals.

Length $3\frac{1}{2}$ mm.; width 2 mm.

Hab. Natal (Isipongo). C. N. Barker,

FAMILY TENEBRIONIDÆ.

TRIBE ADESMIINI.

GEN. ADESMIA, Fish.

ADESMIA (MACROPODA) KHOIKOINA, n. sp.

Black, shining, sub-spherical, elytra abruptly dehiscent and acuminate behind; head closely punctate in the anterior part and much less closely on the vertex; prothorax twice as broad as long, impunctate on the discoidal part, but with a few punctures on the sides, the flavous fringe of hairs in the anterior part is extremely short; elytra globose from the base to two-thirds of the length, almost declivous there and aculeate behind, the median anterior part of the disk is smooth, but it is sparsely dotted thence with round tubercles with smooth intervals, the sub-serrate outer margin has close to it a row of similar tubercles not in the least connected with the serration, epipleura with very faint traces of obsoletely tuberculated impressions; legs moderately long, rugose, basal abdominal segments and part of the pectus strongly plicate longitudinally.

Shape of *A. ovata*, Oliv. its closer ally, and of *A. goryi*, Sol. which is, however, less convex in the anterior part of the elytra, but distinguished from both by the entirely smooth and impunctate intervals separating the sparsely dotted tubercles of the elytra.

Length $13\frac{1}{2}$ – $15\frac{1}{4}$ mm.; width 8 – $11\frac{1}{2}$ mm.

Hab. Great Namaqualand. (Stockholm Museum.)

ADESMIA (MACROPODA) DAMARA, n. sp.

Black, sub-opaque; head coarsely scrobiculate and having three very deep and broad longitudinal grooves; prothorax almost twice as broad as long, straight laterally and with the anterior angles projecting conspicuously beyond the straight anterior margin, plane and very coarsely scrobiculate; elytra very broadly ampliato-ovate, very little convex in the posterior part except at the declivity which is abrupt, covered with broad, deep scrobiculate foveæ equal in width in the dorsal part and separated by somewhat sharp yet finely granulose walls, these granules are more conspicuous in the declivous part where the foveæ are shallower; under side and legs roughly scrobiculato-punctate.

Allied to *A. (Macrop.) scrobipennis*, Haag. but larger, the head in

the latter has not the three conspicuous longitudinal furrows, the prothorax is rounded laterally, and the anterior angles are not conspicuously projecting as in *A. damara*; the scrobiculate foveæ are of nearly the same pattern, but they are more regular in *A. damara* and the dividing walls are granulose, which is not the case in *A. scrobipennis*.

Length 20 mm.; width 11 mm.

Hab. Damaraland. (Stockholm Museum.)

ADESMIA (ONYMACHRYS) LASKERI, n. sp.

Black, shining, anterior margin of prothorax with a conspicuous band of yellowish-white hairs; body elongato-ovate, one-third wider in the female than in the male, legs piceous-red; head punctulate; prothorax one-third wider than long, straight laterally, but wider at the base than at apex in the female, and sparingly aciculate; elytra elongato-ovate, and in the female ampliatio-ovate, half wider across the median part than across the base in the male, and once and a half in the female, convex in the anterior part, dehiscent from the middle to the apex where they are acuminate, briefly granular and with three granular costules obliterated, however, in the posterior declivity, the granules or minute tubercles are not coalescing; under side with the normal plication; legs very long, very slender.

This species is very different from any of its South African congeners. It is more slender, in spite of the ampliation of the elytra across the median part; the sculpture of the latter part is similar to that of *A. (Onym.) tenuegranata*, Fairm.; this latter species is, however, much more globose.

I propose to name this species after its captor, the late Dr. Lasker, who lost his life by drowning near the very place where he discovered it.

Length 9-12 mm.; width 5-7 mm.

Hab. Damaraland (Angra Pequena).

STENOCARA JURGATRIX, n. sp.

Female: Black, shining, prothorax with a very narrow fringe of silky white pubescence, head with an impression on each side near the antennal crest, and a central and deeper frontal one, covered with deep, elongated punctures; prothorax narrowed in the anterior part and much broader in the posterior, with the sides hardly ampliatio, nearly equal in length to the width across the apical, but much shorter than across the basal part, sparsely punctulate;

elytra strongly amplified and dilated in the centre, moderately convex in the anterior part, strongly dehiscent from past the median and quite declivous at the apex, on each side are three rows of sharp, conical, closely set tubercles, including the juxta-marginal one, and three alternate rows of smaller yet equally sharp ones the first of which is between the suture and the first dorsal row, the suture is also sharply tuberculate from the median part to the apex and the outer margin very strongly serrate, the epipleural fold is foveolate and the intervals between all the dorsal rows are sprinkled with sharp granules; legs long, slender; under side as in all the other species of *Stenocara*.

The nearest ally of *S. jurgatrix* is *S. longipes*, but the elytra are much more broadly amplified and more depressed than in that species, the tubercles of the three higher dorsal rows as well as of those of the intervening ones are much sharper, much more closely set, and therefore much more numerous.

Length 15 mm.; width $9\frac{3}{4}$ mm.

Hab. Namaqualand (Ograbies). R. Trimen.

TRIBE ASIDINI.

HÆMUS, n. gen.

Mentum long, one-third longer than broad, slightly rounded laterally at apex, emarginate, deeply impressed on each side, labial palpi inserted on the inner face, but the two apical joints project beyond the edge of the mentum, the last joint is sub-fusiform, broadly truncate; the two lobes of the maxillæ are stiffly bristly, last joint of the long maxillary palpi cup-shaped, broadly truncate; left mandible trifid; antennæ reaching the base of the prothorax, bristly except the four last apical joints which are briefly pubescent, joints third to seventh elongated, fourth as long as fifth and sixth taken together, seventh a little shorter than the preceding, eighth sub-conical, ninth and tenth transverse, eleventh sub-turbinate, closely fitting against the tenth; labrum transverse, emarginate, epistoma incised in front, genæ strongly projecting beyond the very narrow transverse eyes; prothorax deeply incised laterally beyond the median part which is therefore strongly angular, straight along the base, with the angles sharp; no scutellum; elytra oblongo-ovate, not much convex, epipleural fold broad; legs somewhat short, not very strong, anterior tibiæ obliquely truncate outwardly, neither angular, dentate or dilated outwardly at apex, slightly emarginate inwardly towards the

apex in the male, not in the female, all the apical spurs very small, especially the posterior; tarsi bristly above and beneath, sub-cordate, basal one longer in the male than in the female.

Differs from *Machla* and *Asida* in the very elongated shape of the mentum and the much longer labial palpi which project considerably beyond the mentum, in the shape of the antennal joints, and in the absence of an outer apical tooth in the anterior tibiae.

HÆMUS CARINATIPENNIS, n. sp.

Black, but covered all over with an earthy coating and short, densely set, thick, bristle-like hairs, springing from each of the somewhat deep punctures; head broader than long; prothorax with the anterior angles sharp, projecting, diagonally amplified laterally from the apex to the median part, straight thence for a short distance, deeply incised there, thus forming a sharp angle, and with the posterior part straight, base also straight, discoidal part very little convex, outer sides slightly deplanated; no scutellum; elytra oblong-ovate, somewhat plane in the anterior part, dehiscent behind, very rugose, but the background is hidden by the earthy coating, except along the epipleural fold, the suture is broad, raised, and on each side are three costæ, the first and third of which reach the posterior dehiscence, but the first one is slightly longer, at some distance from the outer costa there is a small tubercle nearly equidistant from the apex and from the terminal part of the costa, the second costa is a little shorter than the other two; the under side and legs are clothed with very dense, short appressed hairs, finer than those covering the upper side.

Length 9–10 mm.; width 5–5½ mm.

Hab. Southern Rhodesia (Umtali). G. A. K. Marshall.

TRIBE SCAURINI.

GEN. HERPISCUS, Sol.

HERPISCUS DAMARINUS, n. sp.

Head, prothorax, antennæ, and legs chestnut-brown, elytra piceous, glabrous, moderately shining; head finely striolate from the transverse basal impression to the anterior one, and deeply punctured laterally, epistoma closely and finely punctulate; prothorax orbicular, convex but not gibbose, truncate in front and also behind, and covered with very closely set, much elongated punctures

the walls of which form a very fine longitudinal striation ; scutellum very small ; elytra somewhat plane in the anterior part, but strongly declivous laterally and behind, and having on each side nine highly raised, sharp carinæ, the intervals of which have a row of shallow punctures ; under side and legs closely punctulate, anterior femora not dentate inwardly at middle ; posterior ones not denticulate underneath.

Length $6-7\frac{1}{2}$ mm. ; width $2\frac{1}{2}-3$ mm.

This species differs from *H. sommeri*, ScL., in the less gibbose prothorax and the much finer striolæ of that part of the body ; the anterior femora are not dentate, nor the hind ones denticulate beneath as in *H. gracilis*, Gerst., with which *H. velox*, Fahr., might prove to be identical.

Hab. Northern Damaraland. A. W. Eriksson.

TRIBE MOLURINI.

GEN. PSAMMODES, Kirb.

PSAMMODES DISCREPANS, n. sp.

Black, only moderately shining, palpi, tarsi, and basal joints of antennæ piceous-red ; head covered with equi-distant not closely set punctures ; prothorax slightly broader than long, very little amplified laterally before the median part, and nearly straight from there to the posterior angles which are only slightly rounded, the base is moderately arcuate and marginate ; the outer margin is sharply carinate, the anterior part is moderately convex, and the posterior one depressed, especially towards the base ; the median part is covered with equi-distant, not closely set and not deep punctures, but the sides are strongly scrobiculate, the scrobiculation extending on each side to about one-sixth of the width ; scutellum punctate laterally ; elytra two and a half as long as the prothorax, sub-oblong-ovate, and with the shoulders very sloping, convex and gradually declivous behind, covered with closely set granules equi-distant but smaller in the posterior part than on the sides, and leaving a moderately broad, smooth, longitudinal space along the suture from the base to the posterior declivous part ; legs strongly scrobiculate, especially the femora, tibiæ very briefly pubescent, tarsi clothed with fulvous, bristly short hairs ; prosternum produced at apex into two strong, slightly divaricating spines ; pectus scrobiculate ; abdomen deeply punctured, except the basal segment which

is somewhat scrobiculate ; male with a conspicuous, fulvous median patch extending on the three basal segments.

Herr Clements Muller, to whom I submitted this species to compare it with Rutenberg's type of *P. spinisus*, writes that although the shape of the prosternum is similar, it is not *P. spinisus*, but it is closely related, and that in the latter the prothorax is much shorter, broader and less strongly sculptured, the elytra are a little narrower, and the whole surface is shining.

Length 29 mm. ; width 15 mm.

Hab. Namaqualand. Garwood Alston.

PSAMMODES DAMARINUS, n. sp.

Black, quite opaque ; head with the same sculpture as *P. discrepans* ; the prothorax is nearly of the same shape and width, but the lateral slight ampliation is more median, the lateral scrobiculation is wider, the punctures in the median dorsal part are much deeper, and the posterior angles are more rounded ; the elytra are suddenly inflated at a very short distance from the oblique shoulders and gradually attenuated from there towards the apex, the dorsal part is convex from near the base, and slopes down towards the apex from about the median part, but the lateral part is almost vertical above the depressed outer margin ; the median part of the disk is broadly smooth from the base to two-thirds of the length, and the sides are covered with small, round, not closely set tubercles extending to about half the length and turning into granules in the posterior part, the whole of the declivous part being also strewn with granules of similar size ; the prosternum and sculpture of the under side and legs are similar to those of *P. discrepans*. I do not know the male of this species ; in this sex the elytra are perhaps a little more elongate, and not so vertical laterally. Although allied to *P. discrepans*, *P. damarinus* is distinguishable by the much more deeply punctured median part of the prothorax, and the much finer and more scattered granules and tubercles on the elytra.

Length 30 mm. ; width $15\frac{1}{2}$ mm.

Hab. Damaraland (no exact locality).

PSAMMODES ZOUTPANSBERGIANUS, n. sp.

Plate XIII., fig. 14.

Male : Black, with every puncture on the prothorax having in the centre a minute greyish hair, the elytra are clothed with similar but very dense hairs, leaving, however, the suture and the costæ denuded ; head covered on the anterior part with somewhat deep,

round punctures, separated by an interval equal to their diameter, labrum impunctate, densely fringed with fulvous hairs; prothorax moderately amplified and rounded laterally slightly before the anterior part, one-third broader there than long, and a little more narrowed thence towards the posterior angle which is moderately rounded, deeply sinuate along the base, anterior angles not sharp; the whole surface is covered with deep round punctures with narrow wavy intervals slightly raised in the median part of the disk, and much more irregular and more sharply raised on the sides; scutellar part scabroso-granulate; elytra elongated, twice and a half the length of the prothorax, sloping sub-diagonally laterally at the humeral part, which is not wider than the base of the prothorax, plainly sinuate, very little amplified towards the median part where it is only one-fourth wider across than the prothorax at its widest part, and very little narrowed towards the posterior part, moderately convex in the anterior, very sloping behind, and having on each side four plain, sub-granulose denuded costæ gradually diminishing in length, the juxta-marginal one being the longest, and the two juxta-sutural coalescing near the top of the posterior declivity, the outer margin is very sharp, and the intervals are filled with irregular granules; under side and legs roughly punctured, the latter with a very short, sub-fulvous hair in each puncture; the three basal abdominal segments have a broad, sub-quadrate patch of fulvous tomentum.

Length 34 mm.; width $14\frac{1}{2}$ mm.

Hab. Transvaal (Pietersburg). A. G. P. Janse.

PSAMMODES FARTUS, n. sp.

Piceous, with the suture slightly rufescent; antennæ and legs clothed with a very short, fulvescent pubescence; epistoma broadly but not deeply punctate in the anterior part only, frontal part with moderately closely set minute punctures; prothorax broadly and roundly amplified, one-third broader than long across its widest part, which is not quite in the middle, moderately convex, and finely and not closely punctulate; elytra slightly convex, ampliatio-ovate, strongly declivous behind without costæ in the anterior part, but with four longitudinal, shallow broad sulci the four intervals of which are clothed with long, densely set, greyish flavescent hairs, the three dorsal rows of hairs are shorter, the fourth ascends from near the apex to about half the length of the elytra, and between this supra-lateral row and the outer margin there are also some

more scattered but equally long hairs, the anterior discoidal part is finely and not closely punctulate and the sides are covered with very small scattered granules, the setigerous ones being larger than the others; the three basal abdominal segments are covered with nearly coalescing rough punctures and are not plicate, the punctures on the apical segments are rounder.

This species is allied to *P. batesi*, Haag., which I take to be identical with *P. ponderosus*, Fähr.; it is intermediate in shape between this species and *P. ventricosus*, Fähr., the elytra are not, however, as deeply sulcate laterally in the anterior part, and the vestiture is quite different.

Length $36\frac{1}{2}$ mm.; width $21\frac{1}{2}$ mm.

Hab. Transvaal (Pietersburg). A. J. T. Janse.

PSAMMODES ILLOTUS, n. sp.

Fuscous black, with a tinge of brownish-red on the centre of the prothorax, and occasionally on the anterior part, and also a narrow reddish line along the suture, elongate-ovate; elytra briefly pubescent in the posterior part; head and prothorax shaped as in *P. ponderosus*, *P. ventricosus*, &c., the former is part obsoletely punctate, the latter quite impunctate; elytra elongated, twice as broad at their widest part than across the humeral, convex but not abruptly dehiscent behind, and somewhat acuminate laterally towards the apex, the anterior part of the disk is not even aciculate, but the dehiscent part is very closely and minutely granulose, the granulation ascending obliquely along the sides to about two-thirds of the length, and some of these granules being setigerous, there is a short, greyish, flavescent, nearly appressed pubescence, as well as a faint trace of depressed furrows in the posterior part; under side and legs as in *P. fartus*, from which it differs in the more elongated, more acuminate and less abruptly declivous elytra.

Length $31\frac{1}{2}$ –35 mm.; width $16\frac{1}{2}$ – $19\frac{1}{2}$ mm.

Hab. Transvaal (Pietersburg). A. J. T. Janse.

GEN. TRACHYNOTIDEUS, Péring.

TRACHYNOTIDEUS DAMARINUS, n. sp.

Fusco-ferruginous, sub-opaque, elytra with four fuscous bands on each side, head and prothorax having a minute hair in the punctures or interstices; antennæ and legs briefly hairy; head granulose from the anterior parts of the epistoma to the post ocular part, neck closely

punctate; prothorax sub-hexagonal, but the amplified lateral part is not sharply aculeate and is nearer to the apex than to the base, it is closely granular and has a plain longitudinal median smooth line reaching from the apex to long past the median part, and a much shorter one on each side of it, it is nearly as broad at the apex as it is at the base, the latter is very slightly arcuate, and the angles do not project; elytra with the shoulders very little sloping, sinuate behind the humeral angle, thence elongated, very little amplified in the median part, sharply acuminate behind, somewhat depressed in the dorsal part, which bears on each side a very highly raised keel reaching from the base to a short distance from the apex, the suture is only slightly raised, not carinate, and the outer margin is very sharp; the surface is granular, but the granules are not closely set, there are two fuscous longitudinal bands between the suture and the dorsal costa, and two more between the costa and the outer margin; legs long, slender, the three basal abdominal segments with a median not very dense fulvous pubescent patch.

This species is not unlike *Trachynotidens* (*Psammodes*) *angulicollis*, Haag., but the prothorax is neither so much amplified nor so much acuminate laterally, being only slightly wider there than long; the elytra are equally acuminate, but the suture is not carinate.

Length 24 mm.; width $8\frac{1}{2}$ mm.

Hab. Damaraland. The type is in the Stockholm Museum.

GEN. TRACHYNOTUS, Latr.

TRACHYNOTUS RESOLUTUS, n. sp.

Black, moderately shining, head covered on the sides with whitish appressed scales, and having on the upper side scattered, short, bristle-like hairs, it is finely scrobiculate on the vertex, the impression above the epistome is very deep, there is a very plain antennal crest, the eyes are very bulging, not reniform, and have a distinct crest; the prothorax is as long as broad, sharply spinose laterally, convex, strongly shagreened, and having in each interstice a short, thick, bristle-like hair; elytra not broader at the base than the base of the prothorax, elongato-ovate, acuminate behind and having on the dorsal part a sharp keel reaching from the base to slightly past the median part, the outer margin is sharply carinate, both carinae being very briefly hairy, and the intervals are filled with rows of short, bristle-like hairs, which are greyish-flavescent and not closely set, they are not much convex in the anterior part, and they slope gradually from about the median to the apex, the epipleural fold is

aciculate; the abdomen and legs are clothed with minute appressed greyish hairs, and the legs are slightly rufescent.

The eyes in this very distinct species are rounder and more bulging than in the other species known to me.

Length 12 mm.; width $4\frac{1}{2}$ mm.

Hab. Transvaal (Waterberg District). Pretoria Museum.

GEN. AMIANTUS, Fähr.

AMANTUS PUSILLUS, n. sp.

Dark-brown, covered with an earthy substance, head very roughly punctate; prothorax highly convex in the discoidal part, almost gibbose, somewhat compressed laterally and along the base, with the sides amplified and rounded in the middle, scrobiculate, with a very short hair in each scrobicule, without a median raised line, but having on each side a deep longitudinal impression edged laterally by a short, carinate wall; elytra ampliate, and having on each side four sharply carinate, yet slightly flexuose costæ, the inner one, set close to the suture, barely reaches the top of the strong posterior declivity, while the other three reach a little further down, the outer margin which is as sharply carinate as the dorsal costæ, does not reach beyond them, and is almost dentate at apex, the faintly punctate intervals have undulating transverse lines more distinct along the sides of the costæ than in the centre, and forming there alveolets; abdomen finely, but somewhat deeply punctate, punctures not closely set and bearing each a minute grey hair; sternum foveate-punctate; legs very briefly and densely pubescent.

Length 10–11 mm.; width $6-6\frac{1}{2}$ mm.

The shape of the prothorax closely resembles that of *A. haroldi*, but it has no traces of the conspicuous median raised line of the former, and the discoidal supra-lateral tubercles are more in the shape of a ridge; the elytral costæ are not strongly flexuose as in *A. haroldi*.

Hab. Transvaal (Zoutpansberg). A. J. T. Janse; Rev. H. Junod.

GEN. PHLIGRA, Casteln.

PHLIGRA HAMATICOLLIS, n. sp.

Black, densely, but very briefly pubescent and clothed with an earthy covering often hiding the teguments; head very deeply impressed transversely between the highly raised antennal keels; prothorax as long as broad, sharply angular laterally slightly before

the median part, straight thence to the basal angle, the discoidal part is raised and bears on each side a double row of high spines somewhat blunt at tip, the anterior margin, and also the base have each two spines in the middle; elytra not wider at the base than the base of the prothorax, expanding obliquely at the shoulders, ovate thence, the discoidal part is very much raised and the sides and posterior part abruptly sloping, the raised part has on each side two sharp, serrulate costæ, and the suture is also raised, the first costa does not reach beyond the median part, the second, which is edging laterally the raised discoidal part, reaches the top of the declivity, is strongly developed in the anterior part, and ends sharply in the posterior, these two costæ are united with the suture by four transverse raised lines, forming thus six deep, quadrate impressions on each side, the sloping part between the outer dorsal costa and the sharp carinate outer margin is divided into two by a very faint costule, and has very faint traces of quadrate impressions similar to the plainly visible ones of the discoidal part; under side and legs densely and very briefly pubescent.

This species is very distinct from *P. cristata*, Deg.

Length $5\frac{1}{2}$ – $5\frac{3}{4}$ mm.; width 3 – $3\frac{1}{2}$ mm.

Hab. Cape Colony (Graham's Town). L. Péringuey.

PHLIGRA MINUTA, n. sp.

Black, covered with dense, greyish, very short, bristle-like hairs; head closely punctate, eyes bulging, and with a strongly cristate ridge, antennal keel strong; prothorax with the discoidal part somewhat raised, the outer margin is serrulate, not angular in the middle, the anterior one is very highly carinate in the anterior part, in the middle of the disk is a short, plain bifid tubercle, and there is a broad, transverse impression between this tubercle and the base which looks therefore as if it were raised, and a similar but more diagonal impression reaching the outer sides between this median tubercle and the anterior margin; elytra broader than the base of the prothorax but with the shoulders slanting and the humeral angle sharply tuberculate, elongate-ovate, acuminate behind, convex in the anterior part, and gradually dehiscent thence towards the apex, the suture is moderately raised and on each side are two rows of rounded, pubescent tubercles, the first one consists of three, the second of five or six the last of which is situated at a short distance from the apex, and the outer margin has a row of seven or eight, the humeral tubercle included.

Length $4\frac{3}{4}$ mm.; width $2\frac{1}{4}$ mm.

This species is not unlike *Echinotus* in general appearance, but is a true *Phligra*.

Hab. Cape Colony (Oudtshoorn). D. W. F. Purcell.

TRIBE PEDININI.

GEN. ANCHOPHTHALMUS, Gerst.

ANCHOPHTHALMUS INDIGUS, n. sp.

Black, not shining; head closely punctulate; prothorax equally rounded laterally from the anterior to the posterior angle, not much amplified, one-third shorter in the greatest length than the width at the median part, posterior angles strong, curved slightly inwards, outer sides moderately deplanate with the margin not much raised, closely aciculate-punctate; scutellum punctate; elytra sub-parallel for two-thirds of the length, acuminate thence and moderately dehiscent, plane in the anterior part, finely striate with the striæ faintly punctulate in the dorsal part, but with the three lateral striæ much more plainly punctate especially in the anterior part, and with the intervals moderately convex there, with the exception of the seventh which is very highly raised in both sexes for half the length, while they are quite plane in the dorsal part, the surface is very finely aciculate, and there is a plain row of punctures along the carinate epipleural fold, from the base to about the median part; under side striolate, legs finely and closely punctulate. In the male the elytra are slightly more parallel than in the female.

Not unlike *A. dentipes*, Gerst., the elytra are, however, more acuminate than in the same sex of *A. dentipes*, and more sloping behind, the striæ are finer, and the intervals are quite plane on the dorsal part, much less raised, and without any traces of transverse punctures on the outer; but laterally the punctures, especially in the male, impinge slightly on the sides of the intervals. It is easily recognised by the seventh interval of each elytra being highly raised from the base to the median part only.

Length 17–18 mm.; width $7\frac{1}{2}$ –8 mm.

Hab. Southern Rhodesia (Manica). F. C. Selous.

ANCHOPHTHALMUS ALGOENSIS, n. sp.

Female: Black, somewhat shining; head closely and somewhat roughly punctulate; prothorax rounded laterally, but straighter in the posterior than in the anterior part, convex in the middle with the

sides broadly depressed and the outer margin reflexed, narrowly and somewhat finely serobiculate-punctate; scutellum deeply punctate; elytra slightly sinuate laterally behind the humeral angle, somewhat ampliate, short, convex at about the median part, strongly dehiscent thence, highly costate with the third, fifth, and seventh costæ more raised than the others, the first and second are broader and sub-rectiform, the others very sharp, and the intervals are filled with deep, transverse foveæ impinging on the whole side of the costæ but not on the sharp, carinate part; under side striolate.

Differs from the other South African species by its shorter appearance due to the greater convexity of the elytra. It is probably closely allied to *A. clathratus*, Gerst., which I know from the description only. The intervals between the sharply carinate elytral costæ are wide, and filled with transverse foveæ even broader than in *Oxythorax clathratus*, Fähr. *Oxythorax* being identical with *Anchophthalmus*, I propose to change the specific name *clathratus* into *fahræi*.

Length 16–17 mm.; width 9–10 mm.

Hab. Mozambique (Algoa Bay). J. de Coster.

ANCHOPHTHALMUS PLICIPENNIS, n. sp.

Female: Black, opaque, covered on the upper side with most minute greyish hairs; head deeply and closely punctate; prothorax nearly equally rounded laterally, the sides are not very broadly ampliate, but the margin is well raised, the discoidal part is only slightly convex and bears two faint, median impressions, it is covered with somewhat small, moderately deep punctures separated by a very narrow, irregular, only slightly raised wall; scutellum deeply punctate; elytra, slightly ampliate past the median part where they are one-fifth wider than across the base, acuminate in the posterior part, almost plane from the base to the posterior declivity, slightly convex there, and slanting thence to the apex, finely striate, but the striæ are shallow, the three first intervals are plane, the fifth and sixth are raised, the whole surface is deeply punctate and covered with irregular, wrinkle-like transverse foveate punctures, shallow in the dorsal part, deeper and more seriate on the sides, these folds are produced by the raised walls of these foveæ, and the two raised supra-lateral intervals are very plainly wavy and wider than the intervening one; under side glabrous; legs minutely hairy.

Length $13\frac{1}{2}$ –17 mm.; width $6\frac{1}{2}$ – $8\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

TRIBE OPATRINI.

ANOMALIPUS MASHUNUS, n. sp.

Plate XIII., fig. 10.

Black, somewhat opaque; head and prothorax covered with round punctures separated by very narrow, plane interstices, head deeply incised above the labrum, prothorax very broadly amplified laterally in both sexes, nearly straight close to the base in the male, not so much in the female, and with the basal angle sharp but not projecting in either sex, very little convex on the disk and with the outer sides depressed, there is no smooth patch or impression on the discoidal part; elytra not wider at the shoulders than the basal part of the prothorax, slightly oblique at the humeral part in the male, nearly parallel thence to the posterior, plane above as far as the posterior declivity which is a little more convex and also less abrupt in the female than in the male, having on each side three plain, although not much raised, granular costules with four indistinct intermediate ones in the male, whereas in the female these intermediate costules are as much raised as the others, and the intervals are finely granulose; in both sexes the two basal abdominal segments are strongly striate longitudinally, and the apical one punctate; anterior tibiae of the male, broadly dilated inwardly at apex, the dilated part being deeply incised in the centre, intermediate slightly arcuate but otherwise simple, and not dentate outwardly, posterior ones simple; in the female the anterior ones are simple but more sharply dentate outwardly, and the intermediate ones have a very distinct, bifid tooth on the upper median part.

Length 19–19½ mm.; width 9½–10 mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

A distinct species.

ANOMALIPUS GASANUS.

Plate XIII., fig. 9.

Male: Black with all the interstices on the upper side filled with an earthy covering; head normally incised in front and with a fairly distinct, although not deep, transverse median impression, punctures nearly contiguous laterally but divided by a sharp edge, less closely set, and with smooth intervals in the median part; prothorax gradually amplified laterally till the median part where it is rounded, and slightly more narrowed thence to the sharply aculeate but not

projecting basal angle than in the anterior part, and one-fourth wider at its broadest part than the median length, not much convex, covered with moderately deep, round punctures separated by very narrow intervals slightly raised all over, at about the median part there is on each side a round supra-marginal, distinct round impression and two elongate ones diagonally disposed on each side of the posterior part, and also a faint line-like longitudinal impression in the median part of the disk; elytra parallel and a little narrower at the base, owing to the shoulders being slightly rounded, than the non-projecting basal angle of the prothorax, one-fifth longer than broad at the posterior declivous part which is convex and plainly drawn inwards towards the apex, depressed on the dorsal and having three very much raised and sharp costæ on each side of the equally raised suture, the intervals are without traces of intermediate costules, and are finely granulose; under side and legs normally striolate and deeply punctured; anterior tibiæ bi-dentate outwardly, much thickened inwardly, narrowly and sub-transversely incised under the inner angle which is obtuse and rounded, the under side is deeply and diagonally excavated, and the inner angle produced into a conspicuous, quadrate process, intermediate tibiæ also deeply excavated at apex and with the inner angles projecting; posterior ones slightly arcuate.

Length 27 mm.; width $12\frac{1}{2}$ mm.

Much more elongated than *Anomalipus podagricus*, Pér., and without any traces of discoidal impressions on the prothorax; the elytra are much more sharply costate and have no traces of intermediate costules, the anterior tibiæ are somewhat similarly excavated underneath, but they are gradually amplified inwardly from the simple median part, the inner angle of the excavation underneath is also more quadrate.

Hab. Southern Rhodesia (Gazaland). G. A. K. Marshall.

ANOMALIPUS BARBERTONIENSIS, n. sp.

Black, opaque; head of the normal shape, deeply punctate; prothorax broadly amplified laterally, straight at a short distance from the base, with the hind angles sharp, moderately convex, covered with foveolate punctures separated by a very narrow, smooth interval; the disk with two irregular, smooth aerolets; elytra slightly amplified from about the median part, very convex in the posterior, plainly and regularly shagreened, and having on each side six very slightly raised costules separated by a moderately

broad interval; in the male the anterior tibiæ are slightly bent inwardly and have there a row of conspicuous, nearly equi-distant spines, and the apical inner part is elongated into a sub-horizontal blunt process pubescent at the tip, set almost at right angles with the long outer apical tooth, and not produced into a vertical spine underneath; the anterior and posterior tibiæ are simple, the intermediate ones have the usual median spine on the upper margin.

In general appearance this species is not unlike *A. dentipes*, but it is easily recognised by the faint, equally high costules of the elytra, the pubescent inner projection of the apex of the anterior tibiæ, as well as by the shape of the genital armature which is quite different from that of any other species of the genus. Female unknown.

Length 21 mm.; width 12 mm.

Hab. Transvaal (Barberton). F. Bottomley.

ANOMALIPUS PAUXILLUS, n. sp.

Black, with the intervals of the elytra and the punctures filled with an earthy matter; prothorax broadly ampliate, sinuate near the basal angle, covered with nearly contiguous round punctures and having in the centre of the disk two round impressions, and also an arcuate one on each side equi-distant between the outer margin and the discoidal impression; elytra very little amplified laterally, plainly convex in the posterior part, with the suture highly raised and on each side three sharp costæ with faint traces of alternate ones, the surface is granular; the anterior tibiæ are not spinose inwardly in the male, and the apical inner angle is slightly projecting and produced into a sub-vertical triangular tooth beneath the two inner spurs; intermediate and posterior tibiæ simple.

This species looks also like a diminutive specimen of *A. dentipes*, but the shape of the anterior tibiæ is different.

Length 15 mm.; width 8 mm.

Hab. Transvaal (Johannesburg). A. Ross.

ANOMALIPUS HYPOCRITA, n. sp.

Male: Black, with a terrenous indumentum on the elytra; head normally incised in front, very indistinctly impressed on each side of the median part; prothorax broadly amplified laterally slightly past the median part where it is twice as broad as long, much more abruptly narrowed in the posterior than in the anterior part, and with the basal angles sharp but not projecting, covered with equally

wide, round punctures separated by a narrow, slightly wavy interval, not impressed on the disk or sides, very little convex, and with the sides plainly depressed; elytra short, not twice as long as the prothorax, strongly declivous behind, not drawn inwardly at the apex, shoulders moderately sharp and projecting slightly beyond the acute straight basal angle, only very slightly wider towards the declivous part than across the base, and having on each side eight sub-tectiform granulose costæ which are more raised than the suture, the second, fourth, and sixth are somewhat more raised than the intervening ones, the intervals are also finely granulose; under side strongly striated longitudinally; legs sub-scabrose-punctate; anterior tibiæ bi-dentate outwardly, simple inwardly, intermediate ones with a sub-median angular tooth on each side of the upper groove.

Length 18 mm.; width 10 mm.

A close ally of *A. turpis*, Pér., and *A. plebeius*, Pér., but easily distinguished from both these species by the simple anterior tibiæ; in *A. turpis* the intermediate ones are simple but arcuate, whereas in *A. hypocrita*, they are simple also but not plainly arcuate, and lastly the genital armature of the male differs from that of the two species above mentioned.

Hab. Transvaal (Lydenburg).

TRIBE COSSYPHINI.

GEN. ENDUSTOMUS, Brém.

ENDUSTOMUS RHODESIANUS, n. sp.

Light brown with the dilated parts paler and spotted with numerous dark dots; prothorax truncate in the centre in front, and sloping obliquely thence towards the sides, which are quite parallel, slightly narrower at the base than across the anterior part, sharply carinate longitudinally in the centre, having an arcuate impression on each side of the convex part, and two or three diagonal sulci on each side of the anterior, the whole surface is very closely pitted; elytra projecting at the base beyond the angles of the prothorax, straight thence for three-fourths of the length, deeply notched on each side at apex, and plainly sinuate at the base, the suture is very sharp, and there is a sharp median dorsal keel reaching from the base to three-fourths of the length, and on each side of it a series of small asymmetric tubercles some of which coalesce, the inner series reaches as far as the reflexed posterior

part, the outer one is shorter than the dorsal keel, and the whole surface is as closely and deeply pitted as the prothorax; the under side of the prothorax and elytra is more plainly spotted with dark spots.

Length $10\frac{1}{4}$ mm.; width 4 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

Somewhat similar in general shape to *E. grandicollis*, Gerst., which occurs also in the same locality, but the latter is much broader and has no keel on the elytra.

TRIBE HETEROTARSINI.

GEN. LYPROPS, Hope.

LYPROPS MOSAMBICUS, n. sp.

Black, with the elytra very dark chestnut-brown, clothed on the upper side with a very dense, short but erect greyish, flavescent pubescence; head with the transverse impression above the epistoma broad and deep, covered, except the labrum which is punctulate, with round deep punctures more closely set in the anterior than in the posterior part, the latter is very little produced behind the ridge of the very large eyes; prothorax roundly amplified laterally in the anterior part and narrowed thence to the base, one-third broader than long, very little convex, and covered with round punctures separated by an interval slightly narrower than their diameter; scutellum closely punctulate; elytra slightly amplified laterally behind, a little depressed in the anterior part, and covered with round deep punctures separated by an interval about equal to their diameter; legs and under side fuscous, pubescent.

Length 7 mm.; width 3 mm.

Allied to *L. pilosus*, Müll., but less densely pubescent, and much less coarsely punctured on the head and prothorax.

Hab. Mozambique (Beira). P. A. Sheppard.

LYPROPS NAMAQUENSIS, n. sp.

Ferruginous-red, antennæ also ferruginous; it is clothed on the upper side with long greyish, upright hairs; head roughly foveolate, slightly elongated behind the eyes, joints 7-10, slightly longer than or as long as wide, presumably according to the sex; prothorax as wide as long, not amplified and rounded laterally in front if seen from above, but gradually narrowed towards the base, roughly

foveolate-punctate and having a slight median longitudinal depression; scutellum closely punctate; elytra elongated, very slightly sinuated laterally, and not appreciably amplified behind, covered with deep, round punctures separated by an interval, not quite equal in width to their own diameter; abdomen and pectus deeply punctate, the punctures setigerous.

This species differs from *L. pilosus* and *L. mosambicus* by the more parallel elytra, and from *L. badius*, Müll., in which the elytra are equally parallel, by the long pubescence and the much deeper and not seriate punctures of the elytra, the prothorax is also much more broadly and more coarsely punctate.

Length 6-7½ mm.; width 2½-2¾ mm.

Hab. Cape Colony (Namaqualand). R. M. Lightfoot; L. Péringuey.

GEN. DICHASTOPS, Gerst.

DICHASTOPS MASHUNUS, n. sp.

Black with a metallic sheen, elytra ferruginous-brown, faintly metallic, clothed on the upper part with a short, not dense greyish pubescence; head with a deep, transverse impression extending from one antennal crest to the other, deeply but not roughly, although irregularly, punctate; eyes almost divided into two; basal joints of antennæ shiny, the four ultimate ones opaque, the three penultimate cylindrical, as broad as long, the last one acuminate at the tip; prothorax twice as broad as long, straight laterally, but narrower in the posterior than in the anterior part owing to the outer sides being rounded off towards the base, the central part of the disk is covered with foveate, sub-contiguous punctures separated by somewhat irregular, raised intervals, the sides are plainly scrobiculate, on each side of the median part there is a somewhat ill-defined impression, each puncture, like those on the head, is setigerous; scutellum only moderately hairy, punctulate; elytra elongated, slightly sinuate laterally before the median part, slightly amplified beyond it, only moderately convex in the posterior, not costulate, covered in the dorsal part with moderately deep punctures separated by a raised, smooth interval narrower than their own diameter, and disposed in transverse, short, not much raised folds on the sides, each puncture is setigerous; under side and legs somewhat densely pubescent.

Length 10-11½ mm.; width 4½-5¼ mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

TRIBE HELOPININI.

GEN. MICRANTEREUS, Sol.

MICRANTEREUS CAPICOLA, n. sp.

Black, opaque, elytra covered with a greyish-brown, extremely short pubescence, but with the granules and tubercles glabrous and shining; the head is clothed with very short, appressed whitish-grey hairs and is of the usual shape; the prothorax, which is also clothed with an appressed pubescence similar to that on the head, is very closely and finely punctulate except on two small discoidal denuded patches equi-distant from the outer margin and from a fine, median longitudinal line, it is almost equally amplified and rounded laterally in both sexes in proportion to the size; the female's being wider than the male's; the elytra of the former are elongate-ovate and have on each side two dorsal rows of non-coalescing conspicuous tubercles and an outer one the tubercles of which do not, however, assume a costal appearance, the intervals are filled with scattered tubercles which are more numerous in the anterior than in the posterior part, and the suture is carinate; in the female the elytra are broadly ovate, and the tubercles in the intervals somewhat more numerous; the abdomen and pectus have a faint bluish-black tinge, and are very shiny; the legs are very closely foveolate-punctate, and the basal joint of the anterior tarsi of the male is not much dilated.

Undoubtedly closely allied to *M. longipes*, Fähr.; the two sexes are, however, more ovate, the tubercles on the two dorsal rows are not so closely set and do not coalesce in the posterior declivity so as to form more or less sharply carinate costæ.

Length $16\frac{1}{2}$ mm.; width 10–11 mm.

Hab. Cape Colony (Mossel Bay; Cradock). Dr. H. Martin.

MICRANTEREUS PROCURSUS, n. sp.,

Plate XIII., figs. 1, 2.

Closely allied to *M. vicarius*, differs from it merely by the broader elytra which are also more obliquely amplified laterally behind the shoulders, the costæ on the elytra are much more raised, the first dorsal one is plainly divaricating towards the base, whereas they are straight in *M. vicarius*, and the second and third intervals are much more conspicuously tuberculate; the female resembles that of

M. vicarius, and the granules on the intervals are nearly similar, but the three costæ are much more raised, the minute sub-flavescent hairs are also denser. The description of the female of *P. vicarius* applies also to that of *M. procursus*, but the costæ on the elytra are very much sharper.

Length 18–21 mm. ; width 11 mm.

Hab. Southern Rhodesia (Melsetter, Gazaland). G. A. K. Marshall.

MICRANTEREUS ZOUTPANSBERGIANUS, n. sp.,

Plate XIII., fig. 8.

Male: Black, opaque; head and prothorax finely aciculate; the latter part is rounded and slightly amplified laterally in the middle, it is one-third broader than long, and has on the disk two somewhat faint impressions; elytra one-fourth broader across the median part than at the base and slightly narrower across the declivous part which begins close past the middle and is very sloping, the anterior part from the base to the middle is nearly flat, the suture is raised from the median part to the apex and there are three somewhat sharp costules on each side, the juxta-sutural one being obliterated from the base to the top of the declivity, the intervals between the suture and the second dorsal costæ are very roughly coriaceous but also somewhat granular along the second costa, the third interval is filled with closely set granular tubercles, the sides are nearly smooth except for a row of granules edging the base of the carinate costa.

Female: More robust than the male; prothorax much wider but not longer, more deeply aciculate and having two conspicuous impressions on the disk; elytra a little more parallel laterally, one-third broader across the median part than at the base, strongly convex, and very abruptly declivous from nearly the median part, tri-costate on each side with the juxta-sutural costa beginning only at the top of the declivity, the second costa is bluntly tuberculate and stops at a distance from the base, but the third one is entire, the intervals between the suture and the second costa are more coriaceous than granulose, but the third one is moderately filled with granules, the whole surface is covered with most minute, not densely set sub-flavescent hairs.

Length 16–17 mm. ; width 9–10 mm.

Hab. Transvaal (Zoutpansberg). Rev. H. A. Junod; A. J. T. Janse.

The male is not unlike in shape *M. pronus*, Pér., but the elytra are more ampliata laterally; the female is very different from that of *M. pronus*.

MICRANTEREUS LYDENBURGIENSIS, n. sp.,

Plate XIII., fig. 7.

Male: Black, with the elytra reddish-brown; head and prothorax plainly aciculate and extremely finely pubescent; prothorax a little more ampliata laterally than usual, and on that account only one-fourth narrower than long, and bearing a faint longitudinal median impressed line; elytra glabrous, sub-acuminate-ovate, twice as broad across the median part as at the base, strongly sloping, but hardly declivous from two-thirds of the length, very little convex and covered with closely set acuminate tubercles which are less well defined in the anterior median part of the disk, and are disposed in two indistinct series, often quite obliterated on the hind slope, sides irregularly punctured; legs very long and slender, first joint of the anterior tarsi conspicuously dilated.

Length $11\frac{1}{2}$ mm.; width 7 mm.

Female: Covered all over with an appressed greyish pubescence; prothorax broader, slightly shorter and more ampliata laterally, the longitudinal median line slightly more distinct; elytra more ampliata than in the male, but also somewhat elongate-ovate, but only one-third broader across the median part than at the base, convex and much more declivous behind than in the male, granulate laterally along the outer costa, and having only a few scattered, small tubercles in the posterior part of the elytra where these tubercles are slightly seriate at a short distance from the suture, which is not raised.

Length 11 mm.; width 8 mm.

Hab. Transvaal (Lydenburg). Pretoria Museum.

This species has no close ally, but the female resembles somewhat that of *M. devevus*, Pér.

MICRANTEREUS GASANUS, n. sp.,

Plate XIII., figs. 5, 6.

Male: Black, with the background of the elytra terrenous; head and prothorax finely aciculate, the latter part is of the usual shape obtaining in the South African species, *i.e.*, one-third broader than long, and with the median part of the sides rounded and slightly ampliata; elytra rounded at the shoulders, twice as broad across

the median part as at the base, strongly declivous behind at a short distance from the middle, covered with sub-aculeate, closely set, yet somewhat irregular, moderately shining tubercles the larger of which are disposed in two seriate dorsal rows on each side, the supra-lateral row being much more distinct, although granular, the sides are deeply seriato-punctate.

Length 16 mm.; width $9\frac{1}{2}$ mm.

Female: Also opaque black, but with very fine, appressed flavescent hairs on the elytra; prothorax broader and a little shorter than in the male; elytra more ampliatis nearer the base and not much wider across the median part than at a short distance from the shoulders, more convex than the male in the anterior part, and looking therefore still more declivous behind, the first and second seriate rows of tubercles are only feebly indicated, and the tubercles in the intervals are more scattered and less well defined, but the strong granules along the lateral costa are nearly as numerous as in the male.

Length $15\frac{1}{2}$ mm.; width 10 mm.

Hab. Southern Rhodesia (Melseter, Gazaland). G. A. K. Marshall.

The nearest ally of this species is *M. spurius*, the elytra of which are, however, more ampliatis laterally in the middle, and the costate rows of tubercles are distinctly more seriate than in *M. gazanus*. The female also closely resembles that of *M. gazanus*, but is likewise plainly more costate.

MICRANTEREUS HIRSUTUS, n. sp.,

Plate XIII., fig. 4.

Female: Black, but with the elytra covered by a terrenous coating; head and prothorax extremely finely aciculate, opaque; prothorax short, twice as broad as long, rounded laterally, slightly wider at the base than at the apex; elytra strongly ampliatis from the humeral angle which is somewhat wider than the base of the prothorax, very convex, and with a conspicuously rounded declivity behind, one-third narrower at the base than across the median part where the posterior declivity begins, and one-third less in width at their widest part than long, the suture is raised and sub-tuberculate, and on each side are three series of small tubercles not greatly developed in the anterior part, much more so in the posterior, where they are somewhat aculeate, the intervals are irregularly granulose and dotted with dense, long, erect grey sub-flavescent hairs, but the declivous.

sides which are very shining are bare and only slightly punctulate ; under side shining, glabrous ; legs short, slender, simple, and like the tarsi clothed with a flavescent pubescence ; antennæ very briefly pubescent.

Length 16 mm. ; width 11 mm.

This species is distinguished from all the others by the long, erect hairs on the elytra.

Hab. Transvaal (Lydenburg). Pretoria Museum.

MICRANTEREUS VICARIUS, n. sp.,

Plate XIII., fig. 3.

Male : Black, sub-opaque on the elytra ; head and prothorax finely punctate, the aciculate punctures slightly finer on the head than on the prothorax, where they are separated by a smooth interval equal in width to their own diameter ; prothorax of the normal shape, that is to say, about one-fifth broader than long, very slightly attenuate laterally in front and behind, with the two angles sharp but not projecting, very little convex behind, and sloping slightly in the anterior part ; scutellum very short, narrow, but fairly wide ; elytra not convex in the dorsal part, fitting against the base of the prothorax, but with the shoulders rounded, oblong-ovate but sub-acuminate towards the posterior part, very slightly narrower across the declivous part than across the median, where they are double the width of the base, sharply tri-costate on each side, with the suture slightly raised, the interval between the two juxta-sutural costæ are strongly coriaceous, and the two other intervals filled with large granules which are larger, more tubercle-like, and also more numerous throughout the whole of its length than on the second, the anterior part of which is more sub-scribulate than tuberculate ; sides irregularly punctate and coriaceous ; tooth of the anterior femora distinct but not sharp, all the tibiæ sinuate inwardly in the usual manner.

Female : Head and prothorax finely aciculate as in the male ; prothorax shorter, one-third broader than long ; scutellum very rudimentary ; elytra strongly convex and very declivous behind, two-fifths wider across the median part than across the base, and only one-sixth narrower at the top of the declivous part, sharply tri-costate on each side, and with the three intervals filled with somewhat remote tubercles neither so closely set nor so distinct as in the male, but better defined in the anterior part of the first interval.

Length $17\frac{1}{2}$ –20 mm. ; width 10–11 mm.

Hab. Southern Rhodesia (Mount Shirinda, Gazaland). G. A. K. Marshall.

A close ally of *M. ambiguus*, Pér., but the male differs by the plainly punctulate thorax, which is only very faintly aciculate in *M. ambiguus*, the two basal joints of the anterior tarsi are more broadly dilated in *M. ambiguus*, the female of which is not known.

MICRANTEREUS SPISSUS, Pér.,

Ann. S. Afr. Mus., vol. i., 1899, p. 306. ♂.

Female : Black, and more shiny than the male, shorter and much more strongly declivous behind ; the prothorax is only one-third broader than long, and as equally finely punctured as in the male, the two dorsal costules on the elytra are as much obliterated as in the male, the whole dorsal part as well as the declivous part is smooth, but along the lateral costa there is a somewhat narrow band of very plain granules beginning at a short distance from the humeral part and reaching to the very apex ; legs and under side as usual.

Length 17 mm. ; width 11 mm.

Hab. Transvaal (Lydenburg). Pretoria Museum.

TRIBE PYCNOCERINI.

CATAMERUS MANICANUS, n. sp.

Plate XIII., fig. 11.

Very dark blue, almost black on the upper side, shining, glabrous ; head deeply punctured, the punctures more closely set in the anterior than in the posterior part ; prothorax rounded laterally, but somewhat wider across the base than across the anterior part, plainly convex on the disk which bears in the anterior part, but at a short distance from the middle, two small, round impressions, very sparingly punctulate on the sides and almost impunctate in the centre in the male, but in the female the round punctures are deeper, more closely set, and spread over the whole surface, the outer margin is slightly and irregularly wavy, and the emargination above the basal angle is shallow, but plain ; scutellum small, convex, nearly impunctate ; elytra with the shoulders very sloping in the

male, much less so in the female, sub-parallel, strongly declivous behind, very little convex in the dorsal part, strongly costate, the costæ sub-pectiform with the intervals bluntly striate-punctate, these punctures, however, are broad, deep, and impinge transversely on the posterior part of the sixth and eighth costæ. In the female the prothorax is less broad, more evenly rounded laterally, and the elytra are wider at the base.

Allied to *C. transvaalensis*, Pér., but more robust; the costæ of the elytra are much more pectiform, and the seriate punctures are much less plainly defined. In my female example of *C. transvaalensis* the punctures on the prothorax are much more closely set than in the same sex of *C. manicatus*. *C. intermedius*, Gah., seems to me to be still more closely allied to the preceding species, and the two might prove to be one. The description is unfortunately so short that no comparison is possible. The species in the Collection which I identify as Mr. Gahan's species are, however, either brassy-green or have violaceous elytra, and the punctures on the prothorax of the male are numerous in the median part of the disk.

Length 20–21 mm.; width 8–9 mm.

Hab. Southern Rhodesia (Manica), F. C. Selous; (Umtali), A. Bodong.

CATAMERUS GASANUS, n. sp.,

Plate XIII., fig. 12.

Very dark blue, like the preceding species, but not so dark on the upper side, and shorter; the head is very roughly punctured; the prothorax, which in the female is not so small as in the same sex of *C. manicatus*, is more crenulate laterally, and the emargination above the basal angle is more deeply incised, especially in the male, the disk bears two broad impressions equi-distant from the median and the basal parts, and is deeply and closely punctured in both sexes, the punctures being coarser than in *C. manicatus*; the elytra are also wider and shorter in proportion to the width, the much-raised costæ are very sharply pectiform, and the much deeper striate punctures of the intervals impinge greatly on the sides of each, the sixth, and especially the eighth costæ being interrupted by transverse impressions in the posterior part.

Length 20 mm.; width $9\frac{1}{4}$ –10 mm.

Hab. Mozambique (Gazaland). G. A. K. Marshall.

TRIBE TENEBRIONINI.

GEN. APHROTUS, Péring.

XENUS (olim).

APHROTUS OBORTUS, n. sp.

Male : Black, glabrous, moderately shining ; apical part of antennæ and tarsi piceous-red ; head deeply excavate in the anterior part and with the antennal ridge produced into a long horn strongly curving forward and rounded at apex, the anterior part of the epistomal cavity is also produced into a somewhat broad, lamellate process, bifurcate at the apex, sub-vertical at the base with the furcate part curving slightly backwards, the surface of the head is covered with elongated punctures ; prothorax regularly rounded laterally from apex to base, moderately convex on the median part, and more so on the sides, covered with moderately deep, round, punctures separated by an interval shorter than their diameter, and having a fine, longitudinal smooth line in the centre only ; scutellum very short, transverse ; elytra oblong-ovate, plainly acuminate at the apex, covered with rows of somewhat closely set punctures as plain in the intervals as in the nearly obliterated striæ ; whole under side roughly and deeply punctured.

Differs considerably from *A. tricorniger*, Péring., in the shape of the cephalic horns, which are, however, produced in the same manner ; the prothorax is more evenly rounded laterally, and the punctures are smaller.

Length $10\frac{3}{4}$ mm. ; width 4 mm.

Hab. Great Namaqualand. Stockholm Museum.

I had proposed for *A. tricorniger* the generic name of *Xenus* (Ann. S. Afr. Mus., vol. i., 1899, p. 255), but as there is already a genus of birds to which this name has been given, as well as *Xenos*, a genus of the *Strepsicera*, I propose to change it into *Aphrotus*.

TRIBE MERACANTHINI.

GEN. ACANTHOMERA, Latr.

ACANTHOMERA CURSOR, n. sp.

Bronze, glabrous, shining, the six apical joints of antennæ are slightly rufescent ; head deeply and very closely punctate, distinctly impressed semicircularly between the ocular canthuses which are

strongly defined; prothorax a little attenuate laterally from the apical angle to about the median part, and nearly straight from there to the basal, with the posterior angle a little rounded; marginate all round, the anterior part is distinctly arcuate, the base nearly straight, it is moderately convex and covered with fine, yet deep and very closely set punctures; scutellum very short but broadly triangular; elytra elongate-ovate but acuminate in the posterior part, and slightly more ampliate in the female than in the male, moderately convex but very sloping in the posterior part; they are covered with numerous closely set seriate punctures, and have on each side six rows of sharp, depressed tubercles directed backwards, these rows of tubercles begin at a short distance from the base, and occasionally there are a few smaller ones along the suture; under side and legs very deeply and closely punctured; anterior femora with a very large inner swelling ending in a very distinct sharp spine in both sexes, but with the outer part of the swelling distinctly angular in the male.

Length $9-9\frac{1}{2}$ mm.; width $4\frac{1}{5}-5\frac{1}{2}$ mm.

This species is very different in general appearance from the typical *Acanthomera dentipes*, Fab., *A. gratilla*, Herbst., &c., but it is closely allied in general facies to *A. helopioides*, Guér., from which it is easily distinguished by the sculpture of the elytra.

Hab. Cape Colony (Bredasdorp). H. Fry.

GEN. VUTSIMUS, Péring.

VUTSIMUS PROPINQUUS, n. sp.

Male: Bronze-black, with the elytra lighter, moderately shining; head and prothorax deeply punctate, the punctures separated by a smooth interval narrower than their diameter; prothorax amplified and rounded laterally, but more attenuate in the anterior than in the posterior part, not much convex, but dehiscent in front, and having a very narrow longitudinal median line extending from the apex to near the centre of the disk; scutellum broadly triangular, punctate; elytra very strongly amplified, globose, ovate, sharply declivous in the posterior part, acuminate at apex, convex from the median part to the top of the abrupt declivity, and having three fairly distinct non-striate rows of punctures reaching the declivity, with the intervals separating these rows closely and irregularly punctate, the remainder of the dorsal part is very roughly punctured, the punctures changing into a coarse, irregular, verrucose granulation on the sides and in the posterior declivous part; epipleural fold deeply

punctate in the broad part; abdominal segments strongly plicate longitudinally, except the apical one which is deeply punctate; sternum deeply and closely punctate, glabrous; legs very briefly pubescent.

Length 16 mm.; width 10 mm.

Allied to *V. coriaccipennis*, Péring, but differs in the shape of the prothorax, which is more rounded laterally; the elytra are more regularly amplified towards the median part, and more abruptly declivous behind, and the median discoidal part of the elytra is not shagreened.

Hab. Transvaal (Lydenburg). Pretoria Museum.

VUTSIMUS BYZACNOIDES, n. sp.

Piceous, with the legs and antennæ piceous-brown; head closely punctate; prothorax not rounded laterally, sloping gradually outwardly from the short outer angle to long past the median part, and thence inwardly towards the basal angles where it is wider than across the anterior part, and a little less than across two-thirds of the length, not much convex in the disk, the anterior part of which is sloping, covered with deep, irregular punctures, somewhat rugate laterally, and having on each side above the basal angle a marginal patch of flavous pubescence; elytra sub-elongate-ovate, very slightly convex from the base to the median part, from where they gradually slope towards the acuminate apex, the suture is not raised, and on each side of it are two deep but narrow striæ reaching the apex, and the intervals of which are rugose in the anterior part and irregularly granose in the posterior, the other intervals right up to the margin of the epipleural fold are filled with rows of large and small irregular shining tubercles; abdomen strongly plicate longitudinally, except the two apical segments which are punctate, and clothed on the sides with flavescent appressed hairs; pectus with a similar pubescence; legs briefly pubescent.

Length $12\frac{1}{2}$ mm.; width 7 mm.

The general appearance is that of *V. pretorius*, Pér., but the elytra are sharply acuminate at apex, and the sculpture is very different.

Hab. Transvaal (Zoutpansberg). Rev. H. Junod.

TRIBE MEGACANTHINI.

GEN. HOPLONYX, Thoms.

A³. Eyes broadly separated on the vertex.

insignis; *granulipennis*; *extraneus*; *gratulus*; *perforatus*.

A². Eyes narrowly separated on the vertex.
refertus ; *puclens* ; *spectandus* ; *amoenus*.

A¹. Eyes almost contiguous on the vertex.
luscus ; *probus*.

HOPLONYX INSIGNIS, n. sp.

Black, moderately shining on the upper side ; head, prothorax, and elytra clothed with fine, erect, sub-fulvous hairs not very closely set, legs villose ; antennæ and palpi ferruginous ; eyes divided by a broad space, which is roughly punctured like the anterior part of the head ; prothorax one-fourth wider than long, plainly attenuated laterally in front, rounded before the median part, slightly sinuate above the sharp basal angle, moderately convex, but having in the centre a faint longitudinal impression, carinate laterally, and covered with not closely set, small, round, setigerous punctures ; elytra broader than the prothorax, sub-parallel, strongly costate, the costæ tectiform and punctate, the striae deep and filled with rough contiguous scabrose punctures, which impinge completely on the costæ in the posterior part ; under side briefly pubescent.

Larger and more massive than *H. afer*, Fähr., and a distinct species.

Length 20 mm. ; width 9 mm.

Hab. Ovampoland. A. W. Eriksson.

HOPLONYX GRANULIPENNIS, n. sp.

Black, opaque, glabrous ; antennæ and palpi piceous ; head very deeply and somewhat roughly punctate, ocular crest very strong, space between the eyes very broad, almost equal to the width of the eyes ; prothorax plainly rounded and amplified laterally at about the median part, but slightly less attenuated towards the base than towards the apex, carinate, one-fourth wider than long, somewhat convex at about the median part of the disk, but sloping forward, and covered with elongated contiguous punctures, the raised walls of which form an irregular plication ; scutellum triangular ; elytra sub-parallel, but slightly amplified at about three-fourths of the length, costate, the costæ tectiform and having each a series of granules, the narrow and shallow intervals are provided with a similar row of granules, instead of punctures ; the legs are very deeply and closely punctate, and very briefly pubescent.

A very distinct species.

Length 15 mm. ; width 7 mm.

Hab. Cape Colony (Calvinia District). E. G. Alston.

HOPLONYX PERFORATUS, n. sp.

Black, quite opaque on the upper side and also on the under side, but the legs are shining; antennæ piceous; eyes very slanting in the apical part, nearly transverse in the anterior, and therefore broadly separated on the vertex, but much less so in the anterior part where the intervening space is about one-third of their length, this space is roughly punctate and has a plain, median, longitudinal groove, the anterior part of the head is very slightly punctate; prothorax slightly attenuate laterally in front, from the very little rounded median part, and also slightly sinuate in the posterior, not much broader than long, faintly impressed longitudinally in the centre, and covered with somewhat irregularly scattered, deep, round punctures, base deeply bi-sinuate; elytra wider at the base than the prothorax and with the humeral angles slightly oblique, gradually acuminate thence to the apex, deeply striate with the intervals tectiform from the base to three-fifths of the length, and having on the sharp edge a row of fine, remote granules, striæ filled with deep, scabrose punctures deeper in the anterior part.

Very closely allied to *H. clypeatus*, Fahr., which I have recorded from the neighbourhood of the Zambesi River and also from Ovampoland; the difference between the two consists in the punctuation of the prothorax, which is extremely coarse and scrobiculate in *H. clypeatus*, and comparatively shallow and with smooth intervals in *H. perforatus*; the elytral costæ are also less acute than in *H. clypeatus*.

Length 13 mm.; width 6 mm.

Hab. Transvaal (Lydenburg District). Pretoria Museum.

HOPLONYX EXTRANEUS, n. sp.

Black, opaque, glabrous, terminal joints of antennæ and palpi sub-ferruginous; head closely and somewhat finely punctate, space between the apex of the eyes slighter broader than half their width, antennal crest strong; prothorax one-third wider than long, plainly rounded laterally in the anterior part near the apex, parallel thence and carinate, not much convex, and covered with closely set, but not quite contiguous, somewhat fine punctures; scutellum triangular, punctate; elytra nearly parallel from the base to the median part, slightly amplified past the middle, and acuminate in the posterior part, striate, the striæ shallow, and filled with small, round punctures separated by an interval nearly equal to their own diameter, intervals plane and filled with numerous, closely set punctures, replaced in

the posterior sloping part by minute granules ; legs glabrous, closely punctate.

In general appearance this species resembles more a *Megacantha* than an *Hoplonyx*, but the four penultimate joints of the antennæ are not moniliform as in *Megacantha*.

Length 18 mm. ; width 7 mm.

Hab. Southern Rhodesia (Matopo). R. Pillans.

HOPLONYX GRATULUS, n. sp.

Black, head and prothorax opaque, elytra sub-opaque, and with a faint metallic lustre ; head covered with deep, sub-rugulose contiguous punctures, eyes separated by a space equal to their own width, supra-antennal crests strongly developed ; prothorax nearly as long as broad, almost parallel, but slightly obliquely attenuated laterally near the anterior angle, equally covered with deep, round punctures separated by a very narrow raised wall, base without a marginal groove ; scutellum ogival, short, punctate ; elytra sub-parallel, but slightly sinuate laterally between the humeral and median parts, closely and moderately deeply punctate-striate, intervals plane, faintly aciculate, the punctures in the juxta-marginal striæ are broad and deep from the basal to the median part ; under side closely punctate, sub-opaque.

Length $7\frac{1}{2}$ mm. ; width $3\frac{1}{2}$ mm.

Hab. Southern Rhodesia (Enkeldoorn), J. ffoliot Darling.

HOPLONYX REFERTUS, n. sp.

Black, head and prothorax opaque, elytra shiny ; head punctate, antennal crests oblique, very long, space between the eyes in the middle of the vertex about equal to one-third of their width ; prothorax twice as broad as long, very faintly punctate, roundly attenuate laterally from the apex to near the median part, straight thence, carinate, strongly bi-sinuate along the base which bears a very fine and not always very distinct groove along the median part ; scutellum triangular, punctate ; elytra not wider than the prothorax at the base owing to the shoulders being very sloping, nearly parallel for two-thirds of the length, attenuate thence to the apex, narrowly and closely punctate-striate with the intervals plane in the anterior part, faintly convex in the posterior, and having very faint traces of a slight aciculation.

This species is easily distinguishable from the other South African ones by the very broad prothorax, and the sloping shoulders of

the elytra. It seems to have a wide range, and is a close ally of *H. vicinus*, Péring.

Length 13–17½ mm. ; width 6–7¾ mm.

Hab. Cape Colony (Cape Town, Tulbagh), L. Péringuey, R. Lightfoot. Natal (Durban), C. N. Barker ; (Frere) G. A. K. Marshall. Transvaal (Lydenburg), E. J. Dunn.

HOPLONYX PUDENS, n. sp.

Black, shining, except the prothorax which is opaque ; antennal crests longitudinal, eyes reaching nearly the arcuate frontal impression, divided there by a space about equal to one-fourth of their width, anterior part of the head punctate, posterior impunctate ; prothorax gradually attenuated laterally from the base to the apex where it is only slightly more than half as wide, but the attenuation is plainer near the apex, carinate, one-third broader at the base than long, with a faint basal groove, and almost impunctate ; scutellum short, triangular, only slightly punctate ; elytra not wider at the base than the base of the prothorax, but with the shoulders sloping immediately behind the base, somewhat sharply acuminate laterally towards the apex, and having such shallow striæ that the punctures they contain are often disconnected, and stand by themselves in some male examples, the intervals are plane and impunctate.

Length 11–14 mm. ; width 5–7 mm.

Hab. Natal (Durban), E. N. Barker ; (Eshowe) A. Windham.

HOPLONYX SPECTANDUS, n. sp.

Very closely allied to *H. pudens* ; the shape of the head and eyes are the same, but the punctures on the vertex are deeper ; the prothorax is shining, plainly punctate, in the shape of a truncate cone, half as broad again at the base as at the apex, and one-third wider at the base than long, the sides are almost straight ; the bi-sinuate base has a very faint median groove, and in the central part of the disk there is a fine, slightly impressed, longitudinal line disappearing in the posterior part ; elytra as in *H. pudens*, but more deeply striate, and with all the punctures united.

Closely allied to *H. (Erycastus) navicularis*, Fairm., but the prothorax is much more narrowly attenuated from the base to the anterior angle, and in the type of *H. navicularis*, kindly lent me by Mons. Fairmaire, there are no traces of the median impressed line on the anterior part.

Length 16 mm. ; width 7 mm.

Hab. Natal (Durban). Dr. Spencer.

HOPLONYX AMOENUS, n. sp.

Dark bronze, with the elytra brighter than the prothorax ; antennæ piceous ; head deeply and somewhat roughly punctate especially on the vertex between the eyes which are divided by a space equal to one-third of their width, antennal crests strong, almost longitudinal ; prothorax parallel, but obliquely narrowed near the apical angle, slightly impressed on each side of the base which is not grooved, covered with deep, closely set punctures, which are round on the sides but plainly elongated on the greatest part of the disk and divided there by smooth intervals ; scutellum sub-cordate and having a few punctures ; elytra only slightly wider at the base than the base of the prothorax, and with the shoulders rounded, nearly straight for one-third of the length, amplified thence to two-thirds of the length, and from there acuminate towards the apex, deeply punctate-striate with the intervals plane and also deeply punctate, but the punctures are much smaller than those on the striæ ; legs finely punctate.

In this species the elytra are more amplified laterally past the median part, and are therefore less parallel than in the other South African species.

Length $9\frac{1}{2}$ mm. ; width 4 mm.

Hab. Natal. Dr. H. Martin.

HOPLONYX PROBUS, n. sp.

Piceous, very shining, antennæ and tibiæ piceous-red ; anterior part of the head closely and roughly punctate ; eyes separated by a narrow, raised line, antennal crests longitudinal ; prothorax wider than long by one-fourth, plainly attenuate laterally in the anterior part, slightly rounded past the median, very slightly sinuate above the basal angle, base plainly sinuate and impressed on each side of the median part which is faintly grooved, the whole surface is covered with fine punctures separated by smooth intervals equal in width to the diameter of the punctures ; scutellum sub-ogival, almost impunctate ; elytra sub-parallel, slightly sinuate laterally before the median part, not at all striate for the greatest part of the length, but showing very faint traces of striate lines towards the apex, covered with series of round punctures disposed longitudinally, these punctures are nearly equal in width in the dorsal part, but laterally the bi-alternate rows, which normally should be sunk into striæ, are wider than the others.

Length $16\frac{1}{2}$ mm. ; width 7 mm.

Hab. Cape Colony (Graham's Town). Albany Museum.

HOPLONYX LUSCUS, n. sp.

Black, shining, glabrous, palpi, antennal joints and tarsi piceous, and anterior part of the head considerably narrower than the strongly bulging eyes which are separated right to the vertex by a linear, extremely narrow keel, the supra-antennal ridges are very sharp, and the punctures are moderately deep and moderately closely set; prothorax sub-parallel, but slightly rounded and attenuated laterally in the anterior part, and covered with equi-distant, moderately deep punctures separated from each other by a space equal to their own diameter, scutellum sub-ogival; elytra broader than the prothorax and with the shoulders somewhat rounded, parallel, moderately attenuate towards the apex, moderately convex on the upper side, faintly striate, with the striæ filled with deep, round punctures divided from each other by a smooth space about equal to two-thirds of their diameter, the interspaces are plane, and have each a double row of fine punctures; all the punctures either in the striæ or in the intervals are a little deeper in the anterior than in the posterior part; abdomen strigose; pectus punctulate; legs finely punctate; tooth of anterior femora strong and sharp.

Allied to *O. longitarsis*, Fähr., but the prothorax is not so deeply and closely punctured, and the punctures are round; the elytra are not so deeply striate, especially the three juxta-sutural ones, and the intervals are plainer in the basal part.

Length 11–14 mm.; width 5–6 mm.

Hab. Natal, Dr. H. Martin; (Eshowe) A. Windham.

GEN. ACASTUS, Péring.

ACASTUS SEBAKUENSIS, n. sp.

Chestnut-brown, somewhat shining, almost glabrous on the upper side except the epistome, very briefly pubescent on the under side and legs; prothorax slightly rounded laterally, sinuate above the basal angle, covered with contiguous cicatricose foveate punctures, the disk is plainly impressed longitudinally on each side with the median part standing in relief, and the impressions are hedged outwardly by a longitudinal, rounded, wall-like elevation plainly tuberculate in the middle, the base is strongly bi-sinuate; elytra parallel, very sharply costate, with the intervals filled by a series of deep punctures separated by an interval equal to their own diameter, and not impinging on the sides of the costæ; abdominal segments punctulate, metasternum and legs somewhat roughly punctured.

Length 9–10 mm.; width $3\frac{1}{2}$ –4 mm.

Hab. Southern Rhodesia (Sebakwe). D. Dods.

The nearest ally of this species is *A. segnis*, Péring.; but the shape of the impressions on the prothorax is different.

TRIBE AMARYGMINI.

GEN. PARAMARYGMUS, Qued.

PARAMARYGMUS GRATULUS, n. sp.

Light bronze on the upper side, bronze with a reddish sheen on the under side, shining, glabrous; antennæ, palpi, legs rufescent; labrum also rufescent; head with a faint transverse impression between the two antennal auriculate processes, minutely and closely punctate; the four penultimate joints of the antennæ are somewhat turbinate, and the apical one ovate; prothorax attenuate laterally in the anterior part, but not in the posterior, and with the apical and basal angles sharp, outer margins carinate, the discoidal part is moderately convex, and the whole surface finely aciculate; scutellum triangular, punctate; elytra slightly wider at the base than the prothorax but with the shoulders rounded, ovate, strongly convex, and dehiscent behind, finely punctate-striate with the intervals plane on the dorsal part, convex laterally, and plainly punctulate, along the carinate epipleural fold is a series of somewhat wide, elongated punctures; abdomen longitudinally strigose.

Length 5–6 $\frac{1}{2}$ mm.; width $3\frac{1}{2}$ –4 $\frac{1}{4}$ mm.

Hab. Natal (Durban). C. N. Barker.

PARAMARYGMUS AMOENUS, n. sp.

A close ally of the preceding species, and coloured alike, but although equally convex yet having a different facies owing to the great convexity of the elytra being past the median part; the punctate striæ of the elytra are slightly more shallow, and the intervals quite plane laterally, the punctures along the carinate epipleural fold are quite distinct, but the intervals which are also finely, although somewhat obsoletely, aciculate are wider than in *P. gratulus*.

Length 8 mm.; width 4 $\frac{1}{4}$ mm.

Hab. Natal (Frere). G. A. K. Marshall.

PARAMARYGMUS GRATIOSUS, n. sp.

Closely allied to the two preceding species, and also bright bronze, the legs, however, are ferruginous, and the antennæ, the five penultimate joints of which are turbinate and the last one ovoid, are slightly rufescent, but the basal joints are infusate; the prothorax is very finely punctulate, the punctures are elongated, and the intervals slightly strigillate laterally; the elytra instead of being ovate are sub-parallel from the base to about two-thirds of the length and acuminate thence to the apex, they are convex near the base and slope thence to the posterior part, the intervals are plane in the anterior part, but slightly convex in the posterior lateral part, and there is a conspicuous series of elongated punctures along the carinate epipleural fold, the intervals are finely punctulate.

Length $5\frac{3}{4}$ mm.; width 4 mm.

Hab. Natal. Dr. H. Martin.

GEN. NESOGENA, Mäkl.

NESOGENA CAFFRA, n. sp.

Bronze, moderately shining on the head and prothorax, elytra greenish-bronze with the striæ greener than the intervals; head very closely and somewhat deeply, although finely punctate, the frontal part has a transverse impression, broader and deeper than the one separating the forehead from the epistoma which is broadly arcuate and simple, antennæ black, joints 6–10 gradually amplified, transverse and compressed, last joint longer, but not broader than the preceding; prothorax gradually amplified laterally from the apex to the base, only slightly sinuate near the anterior angle, and covered all over with very closely set punctures; scutellum rounded at the apex; elytra strongly gibbose in the anterior part and sharply sloping from the median to the apex, strongly acuminate in the posterior part, deeply, yet finely striate, and the striæ closely punctate, intervals plane in the anterior part but becoming gradually convex in the declivous posterior one as they near the apex, they are either quite impunctate or faintly aciculate; under side strigillate, glabrous like the upper side.

Length 7–7 $\frac{1}{2}$ mm.; width 5–5 $\frac{1}{2}$ mm.

I have seen two examples of this species collected by Wahlberg, and labelled Caffraria.

TRIBE STRONGYLIINI.

GEN. STRONGYLIUM, Kirby.

- A³. Eyes separated by a space wider or as wide as their own surface.
 Antennæ reaching the base of the prothorax or further.
discrepans, algoense, imitator, natalense, auspicatum, plausibile, laetum, cælatum.
- A². Eyes separated by a space narrower than their own surface.
 Space moderately narrow.
perturbator, indigens.
 Space very narrow in the anterior part.
rhodesianum, orampoense.
- A¹. Eyes almost contiguous.
lautum.

STRONGYLIUM PERTURBATOR, n. sp.

Bronze-black, the elytra with a more metallic sheen than the rest of the body; anterior part of the head closely but roughly punctate, posterior one with deeper and more serobiculate punctures right to the base, frontal arcuate sulcus distinct, but not deep; prothorax slightly rounded laterally in the anterior part and only very slightly sinuate in the posterior, somewhat plane on the disk, and convex laterally, covered with nearly contiguous punctures separated by rugose irregular intervals, lateral margin very slender, basal one thick, rounded; scutellum with a few fine, scattered punctures; elytra cylindrical, deeply punctato-striate, intervals convex, smooth; abdomen finely yet deeply, but not closely punctate; legs and sternum deeply punctured; antennæ barely reaching the base of the prothorax, fourth joint as long as the third and wider at the top, fifth, sixth, seventh, and eighth bluntly triangular and as broad at apex as the ninth, which is more transverse, tenth narrower than the ninth by nearly one-half, but equally long; the eleventh joint is missing in my example.

Length 17–21 mm.; width $5\frac{1}{2}$ –7 mm.

Not unlike *S. æratum*, Mäkl, but the antennæ are not as long and the joints are shorter and wider; the colour is also much darker.

Hab. Transvaal (Lydenburg), Pretoria Museum. E. J. Dunn.

STRONGYLIUM INDIGENS, n. sp.

Black, with the head and prothorax nearly opaque, and the elytra and under side shining, the latter faintly metallic; head somewhat roughly punctured, especially on the vertex; eyes separated by a

space equal to two-thirds of their width, and with a very plain, raised orbit continued behind as a shallow groove, anterior groove strongly arcuate; antennæ reaching only to the base of the prothorax, the four basal joints are piceous-red, like the palpi, the six penultimate joints are very strongly serrate inwardly, the last is longer than the one preceding and is somewhat amplified inwardly; prothorax distinctly carinate laterally, slightly amplified and rounded in the centre, a little narrower in front than across the base, which is deeply sulcate, covered on the disk with moderately closely set punctures, which, however, disappear along the lateral keel; scutellum impunctate; elytra wider than the prothorax, nearly sub-parallel, costate, the costæ tectiform with the intervals filled with deep, but small, equally distant punctures; intermediate and posterior femora clothed underneath with a dense fulvous pubescence extending from the base to three-fourths of the length.

Length 19 mm.; width 7 mm.

A very distinct species.

Hab. Transvaal (Rustenburg).

STRONGYLUM RHODESIANUM, n. sp.

Bluish-green on the upper side, legs and under side dark blue; belongs to the same group as the preceding species, that is to say, the eyes are divided by a small interval only in the anterior part of the forehead, and the joints of the antennæ, especially the fourth, fifth, and sixth are serrate inwardly, the antennæ, however, reach only slightly beyond the base of the prothorax; the latter is somewhat narrow, and somewhat amplify in the middle laterally, not carinate there, and is covered with irregularly scattered, moderately closely set, deep punctures separated by smooth intervals; the elytra are somewhat broader in proportion to the width of the prothorax than either in *S. æratum*, *S. castaneipenne*, or *S. ovampoense*, and more sinuate laterally, they are sharply costate from base to apex, and the narrow intervals are filled with regularly disposed, closely set, small punctures.

Length 22 mm.; width 6 mm.

Hab. Southern Rhodesia (Enkeldoorn). J. foliot Darling.

STRONGYLUM OVAMPOENSE, n. sp.

Chestnut-bronze on the upper side, dark blue on the under side, and with the legs purplish; head closely punctate, the punctures slightly finer and more closely set in front of the deep arcuate

impression, eyes separated by a narrow interval in the anterior part of the vertex, antennæ reaching slightly beyond the humeral part, and with the joints 4-9 produced angularly at the tip, almost serrate in the inner side, last joint not narrower than the penultimate, sub-truncate at tip; prothorax very little broader than long, not carinate laterally, slightly sinuate there above the base, and strewn with round, irregularly spaced punctures separated by smooth intervals; scutellum impunctate; elytra sub-parallel, sharply costate, the costæ tectiform from base to apex, and with the deep but narrow intervals filled with closely set and regularly disposed punctures.

The nearest ally of this species is *S. æratum*, Mäkl., but *S. ovampoense* differs from it in having smooth intervals between the punctures on the prothorax, and in having much sharper costæ on the elytra.

Length 18 mm.; width $5\frac{3}{4}$ mm.

Hab. Ovampoland. W. A. Eriksson.

STRONGYLUM LAUTUM, n. sp.

Head, prothorax, and legs dark metallic blue, elytra purplish, under side dark grey; anterior part of the head finely and closely punctate, posterior more roughly and more deeply punctured, eyes very large, almost contiguous, but having a slight keel-like orbit; antennæ reaching the shoulders, fourth, fifth, sixth joints somewhat angular inwardly; prothorax plainly narrower in the anterior than in the posterior part, not carinate laterally, slightly sinuate there above the base, and covered with deep, almost contiguous, round, slightly irregular punctures having irregularly raised intervals; scutellum elongated, plane, somewhat sharply triangular; elytra sub-cylindrical, costate, the costæ not tectiform, and separated by deep, somewhat broad punctures growing finer and shallower towards the posterior part.

This species will be easily identified from among the South African ones by the nearly contiguous eyes.

Length 16 mm.; width 5 mm.

Hab. Transvaal (Lydenburg). Pretoria Museum.

STRONGYLUM DISCREPANS, n. sp.

Black, almost opaque, but with the elytra slightly shining; head closely punctulate, except in the basal part, frontal impression very deep, on each side of the head there is a deep longitudinal furrow beginning at the upper anterior angle of the eye and stopping

a little short of the anterior margin of the prothorax; antennæ reaching nearly the base of the prothorax, and with the six dilated and pubescent apical joints very little longer, taken together, than the five basal ones, the third of which is longer than the two preceding; prothorax with the anterior and basal parts rounded laterally, and having thus the appearance of being somewhat amplified, plane on the disk, but with a shallow, median, longitudinal impression which is deeper in the posterior part, the lateral margin is fine and not reflexed, the basal one has a deep sulcus running parallel with it; scutellum impunctate; elytra cylindrical, narrowed in the posterior part, deeply punctate-striate, the intervals strongly convex and impunctate; abdomen closely punctulate, basal part of the three abdominal segments strongly striolate longitudinally; legs closely punctulate; femora plainly thickening towards the apex.

Length $19\frac{1}{2}$ mm.; width $4\frac{1}{3}$ mm.

Hab. Transvaal (Lydenburg District). Pretoria Museum.

STRONGYLUM ALGOENSE, n. sp.

Very closely allied to *S. discrepans*; it is also black and almost opaque; the eyes are widely separated and the frontal furrow very strongly arcuate; the antennæ are longer, the joints more elongated, the dilated apical ones less closely set; the prothorax is slightly more amplified and rounded laterally in the middle, there is a faintly raised median line which is, however, slightly impressed in the anterior part, and the punctuation which, both on the head and prothorax is finer than in *S. discrepans*, is hidden by an opaque tinge; the elytra are cylindrical, highly costate, the costæ tectiform, and deeply punctato-striate, the punctures impinge on either side of the costæ; under side as in *S. discrepans*.

Length 15 mm.; width $5\frac{1}{2}$ mm.

Hab. Mozambique (Rikatla). Rev. H. Junod.

STRONGYLUM IMITATOR, n. sp.

Bright metallic green; elytra testaceous-red, also metallic, antennæ black; head deeply and closely punctured in the anterior part, more coarsely in the posterior, eyes broadly separated, arcuate frontal impression deep; prothorax slightly attenuate laterally in the anterior part for about one-third of the length, parallel thence to the basal part, the angles of which are somewhat rounded, the lateral margin is obliterated, the basal one is grooved and not sharp,

and the whole surface is covered with round, deep, equi-distant punctures, separated by a narrow smooth interval; the hind part of both the head and prothorax have occasionally fuscous, irregular patches; scutellum sharply triangular; narrow, and somewhat elongate; elytra sub-cylindrical, somewhat amplified laterally towards the posterior part, punctato-striate, but with the big punctures filling the striæ not connected longitudinally by an impressed line, the intervals between the striæ are very slightly raised, and covered with closely set round punctures very much smaller than those in the striæ; under side and legs coarsely punctate; antennæ reaching the base of the prothorax, fourth, fifth, and sixth joints triangular, but not strongly angular inwardly, the apical ones sub-transverse, not very closely set, apical one not longer than the penultimate, and rounded at the tip.

Length $16\frac{1}{2}$ mm.; width 6 mm.

Hab. Mozambique (Rikatla). Rev. H. Junod.

Not unlike *S. castaneipenne*, Mäkl., but shorter, and with the sculpture of prothorax and elytra quite different.

STRONGYLUM NATALENSE, n. sp.

Bronze, with the elytra bronze-green and darker than the under side, legs purplish with the basal part of the femora rufescent; antennæ reaching the base of the prothorax, joints 5-7 triangular, the three following transverse, closely set, last one hardly longer than the penultimate; head deeply punctured, the punctures round and denser in the anterior part, and having above the transverse frontal impression a more or less distinct longitudinal one, eyes very broadly separated; prothorax narrow, sub-linear, but slightly wider at the base than at the apex in the male, rounded laterally in the female, plainly carinate laterally, faintly impressed on each side of the median part of the disk, and more distinctly so above the median part of the base, covered with somewhat irregular and not closely set punctures, and with the intervals smooth; scutellum with a median impression; elytra hardly sub-parallel, highly costate with the interstices deeply but irregularly punctured, the costæ are connected transversely by raised walls forming a very irregular and variable reticulation.

This species resembles *S. bohemani*, Mäkl., and the sculpture of the elytra is alike, but it is much narrower, the antennæ are shorter, and the sculpture of the prothorax is different; in *S. bohemani* it consists of very deep, irregular punctures separated by highly raised,

irregular walls, whereas in *S. natalense* the punctures are round, and the intervals smooth.

Length 10–12½ mm.; width 3–4 mm.

Hab. Natal (Durban). C. N. Baker.

STRONGYLUM AUSPICATUM, n. sp.

Very dark blue, with the elytra purplish; the antennæ are also cyaneous, but the five ultimate joints are not shining, they reach the basal angle of the prothorax, and the three penultimate joints are very broad, being slightly more than twice as broad as long; eyes very broadly separated, surface of head very closely punctate; prothorax roundly attenuated laterally in the anterior part, slightly sinuate in the posterior and carinate, covered with deep, round punctures somewhat irregularly scattered in the discoidal part, separated by smooth intervals, and more closely set on the sides; scutellum triangular, impunctate; elytra sinuate laterally towards the median part, plainly ampliate in the posterior; highly costate with the intervals filled with coalescing foveæ forming a conspicuous reticulation, the reticulate foveæ of the fourth, fifth, and sixth intervals are broader or more elongated than the others.

Allied to *S. natalense*, the elytra are, however, more amplified laterally behind, but their sculpture is nearly identical; the apical joints of the antennæ are much wider.

Length 12 mm.; width 7 mm.

Hab. Northern Damaraland. A. W. Eriksson.

STRONGYLUM PLAUSIBILE, n. sp.

Dark blue, with the elytra greenish-bronze; antennæ blue, the five apical joints black, these apical joints are somewhat wide; eyes broadly separated, surface of head closely yet deeply aciculate; prothorax covered with round, almost contiguous, well-defined punctures, nearly as much attenuated laterally behind as in front, and carinate; elytra shaped as in *S. auspicatum*, and also plainly carinate, but the intervals are filled with series of closely set, deep, transverse punctures separated by narrow walls which do not at all form a reticulation, and thus differ from those of *S. natalense* and *S. auspicatum*.

Length 10½ mm.; width 4½ mm.

Hab. Ovampoland. A. W. Eriksson.

STRONGYLUM LÆTUM, n. sp.

Purple, with the legs cyaneous, the six last joints of the antennæ have a distinct metallic sheen; eyes very broadly separated, head deeply and closely punctured with the intervals smooth; antennæ reaching the base of the prothorax, joints 5 and 6 elongated, triangular, the following ones broader, slightly shorter, sub-transverse, last one not longer than the penultimate, rounded at the tip; prothorax transverse, one-fourth wider than long, not carinate laterally, slightly sinuate there above the basal part, anterior angles rounded, posterior sharp, convex on the sides only, not on the median part, and covered with deep, irregular, somewhat broad punctures separated by slightly raised intervals which are more raised and more irregular in the central part of the disk; scutellum impunctate; elytra sub-parallel, highly costate from the base to past the median part with the intervals filled with deep and broad foveæ the walls of which unite the costæ transversely, thus forming a regular reticulation, in the posterior part the costæ become plane, and the striæ are finely and regularly punctate. This species is easily distinguished by the great depth of the fossæ in the anterior half of the elytra.

Length 13 mm.; width 5 mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

STRONGYLUM CÆLATUM, n. sp.

Bronze-green, with the elytra purple, body moderately shining; antennæ longer than the head and prothorax taken together, penultimate joints sub-triangular, not serrate inwardly; eyes widely removed, surface of head very roughly shagreened; prothorax plainly rounded laterally, one-third broader than long, sharply carinate laterally, and roughly and equally shagreened; scutellum triangular, punctate; elytra sub-cylindrical, but slightly sinuate laterally towards the median part, and covered with a network of deep, much elongated foveæ reaching from base to apex, but with the foveæ shorter there than on the dorsal part, the thick, tectiform walls of the foveæ are deeply punctulate.

Allied to *S. bohemani*, Mäkl., and *S. lætum*, but differs from both in the prothorax, being sharply carinate laterally; the foveæ of the elytra are much more elongated than in *S. lætum*, and are not disposed in three superposed series as in *S. bohemani*. It differs also from *S. natalense*, which has a carinate prothorax, in the

more robust body, much more rounded and differently sculptured prothorax and more elongated foveæ on the elytra.

Length $13\frac{1}{2}$ mm.; width $5\frac{1}{4}$ mm.

Hab. Natal (Durban). G. F. Leigh.

GEN. PERICHILUS, Qued.

PERICHILUS DITISSIMUS, n. sp.

Head and prothorax bronze-green variegated with purple patches, and with the margins of the latter purplish; elytra with the base, the second costa as far as the median patch, another patch extending on the fourth, fifth, and sixth costæ from the base to about one-third of the length, and a median and a post-median transverse band merging with the second costa, coppery purple; legs cyaneous, under side purple or violaceous; head deeply punctate, the arcuate frontal furrow very plain, eyes broadly separated; antennæ black, short, not reaching beyond the median part of the prothorax, the first seven joints short, not wider than long, of nearly equal length except the third which is only slightly longer than the fourth, the eighth is a little dilated but smaller than the ninth and tenth, the ultimate one is not very much longer than the tenth and rounded at the tip; prothorax nearly straight laterally, but rounded and attenuated in the anterior part, lateral margin fine, basal one grooved, surface covered with somewhat deep, round punctures somewhat irregularly scattered but equi-distant, and with smooth intervals; scutellum short, rounded at the tip, and punctate; elytra cylindrical, but slightly sinuate laterally, and also slightly ampliate past the middle, and having seriate rows of somewhat broad, deep punctures separated by a very small interval, the first and second intervals on each side of the suture are costulate for a short distance, sharply raised from base to apex, the others are not highly costate, and even in some examples are not raised in the median part; abdomen and pectus deeply and coarsely punctured; legs also deeply and coarsely punctured.

Length 8-9 mm.; width $3-3\frac{1}{2}$ mm.

Hab. Natal (Eshowe). Transvaal (Lydenburg District). Pretoria Museum.

GEN. NANNOCERUS, Fairm.

NANNOCERUS ANGUSTULUS, n. sp.

Obscurely cyaneous, the elytra with a coppery sheen; head closely punctate, the punctures on the posterior part rounder and

broader, the frontal suture quite arcuate and set considerably forward; antennæ reaching slightly beyond the median part of the prothorax, the first five joints are reddish, shorter, taken together, than the five ultimate ones, sixth and seventh joints a little less broad than the three following which are sub-transverse, last joint oblong, one-third longer than the penultimate; prothorax one-third longer than broad, parallel with the anterior angles rounded, but with the lateral margin laminate and ending in a sharp basal angle, moderately depressed on the disk, covered with round, slightly irregularly disposed punctures separated by smooth intervals, and having in the centre a longitudinal line somewhat evanescent except in front, posterior margin slender, very little raised; scutellum very small, sparingly punctate; elytra cylindrical, costate, the costæ sub-pectiform and very finely aciculate, the intervals narrow, deep, and filled with small, equally distant punctures united by an impressed line; abdomen closely punctulate, and without any traces of striae; legs and sternum more finely punctulate than the abdomen.

The shape of the body of this species, and also of the following one, greatly resembles that of *Chalcostylus perrieri*, Fairm., from Madagascar. The shape of the antennal joints is, however, very distinct.

Length 11 mm.; width $3\frac{1}{2}$ mm.

Hab. Mozambique (Beira).

NANNOCERUS BEIRANUS, n. sp.

The description of *N. angustulus* applies also to this species which is dark-cyaneous, almost black, but with the elytra violaceous blue tinged with purple, the five basal joints of the antennæ are black; the shape of the head and prothorax is the same, but the intervals of the elytra are more deeply punctate, and the costæ have occasionally a few fine punctures; the general facies is more robust than in *S. angustulum*.

Length 12–14 mm.; width $4\text{--}4\frac{1}{2}$ mm.

Hab. Mozambique (Beira). P. A. Sheppard.

DIESTESOMA, n. gen.

Mentum small, not impressed on each side of the outer face, ligula short, last joint of labial palpi large, spherical, broadly truncate at tip; outer lobe of maxillæ long, widely dilated, elongate-ovate, clothed with appressed bristle-like hairs, inner lobe narrow, slender,

also very bristly, armed at apex with a sharp horizontal tooth, last joint of maxillary palps obliquely truncate from side to side; labrum rounded laterally, head with a strongly arcuate impressed line reaching the apex of the genæ which are short and do not form a very high antennal crest; antennæ slender, short, barely reaching the base of the prothorax, the five basal joints are less pubescent than the others, the third longer than the fourth, 7-10 sub-triangular, the two penultimate ones more produced inwardly at the apex than outwardly, the last one oblong; prothorax parallel; scutellum short, triangular at the apex; elytra broader than the prothorax at the base, plainly amplified in the posterior part, slightly convex, sloping behind from two-thirds of the length; epipleural fold continued from the base to the apex; prosternum with a strong, elongated, horizontal cuneiform process, mesosternum with a cavity with raised edges for the reception of the prosternal process; legs somewhat short but with the shape and vestiture of *Strongylium*, to which genus the present one is allied.

The species for which this genus is proposed has a peculiar facies, very different in shape and sculpture from those of the African species of *Strongylium*.

DIESTESOMA PULCHRUM, n. sp.

Greenish-bronze, moderately shining, clothed with short, fulvescent hairs, antennæ ferrugineous with a brassy tinge; head deeply and moderately closely punctured, labrum short, rounded, not in a horizontal line with the epistome, somewhat densely pubescent; prothorax nearly parallel, and with the anterior and posterior angles sharp, but not projecting, carinate all round, covered with deep, round punctures separated on the disk by smooth intervals equal in width to their own diameter, but raised and irregular on the sides, it has a deep elongated basal median impression continued as a narrow impressed line as far as the apex, and a deep, elongate-quadrate impression on each side of the median part, the pubescence is moderately dense; scutellum very short, punctulate at the base; elytra plainly amplified laterally from the median part, one-fourth wider behind than across the base, moderately densely pubescent, and having on each side five more or less regular series of very deep, elongate fossæ-like impressions, as well as regular series of moderately deep but somewhat distant punctures continued, but less distinct, through the fossæ, in the declivous posterior part are some rounded deeply rufescent tubercles also covered with hairs like

the remainder of the elytra, except the impressions; these tubercles are transversely disposed at the top of the declivity, and are also disposed in a row along the outer margin.

Length 12–15½ mm.; width 5–6¾ mm.

Hab. Cape Colony (Cape Town). R. M. Lightfoot.

GEN. XANTHOTHOPEIA, Mäkl.

XANTHOTHOPEIA DELAGOÆ, n. sp.

Head, prothorax, legs, and under side bronze; elytra chestnut-red with a bronze sheen; allied to *X. rufipennis*, Mäkl., but smaller; the shape and sculpture of the head and prothorax are the same, but the elytra are much more shining, more deeply and broadly reticulate, and the space between each reticulation is filled with deeper and rougher, irregular punctures.

Length 10 mm.; width 4½ mm.

Hab. Mozambique (Lourenço-Marques).

GEN. PRAOGENA, Cast.

PRAOGENA CYANEIPENNIS, n. sp.

Head and prothorax black, sub-opaque, the latter with a very faint cyaneous tinge, palpi and the six basal joints of antennæ piceous-red; head closely but irregularly and somewhat roughly punctate; prothorax roundly attenuate laterally in the anterior part, slightly amplified and rounded towards the median, sinuate towards the base, plainly convex and dehiscent in the anterior part, only one-sixth wider than long, and covered with deep, round punctures which are more cicatricose laterally than on the median part, and are separated by smooth intervals nearly equal in width to their own diameter; scutellum almost impunctate; elytra of the normal shape, *i.e.*, sub-parallel for two-thirds of the length, but sinuate towards the median part, and gradually acuminate towards the apex, with the humeral callus strongly developed, deeply striate with the striae closely and deeply punctate, the first five intervals are moderately tectate-convex, the others are almost plane, and they are all impunctate; under side and legs blue-black, shining.

This species is distinguished from the South African ones by the broader, more convex, and also more robust prothorax.

Length 16–18 mm.; width 5½–6½ mm.

Hab. Ovampoland. A. W. Eriksson.

PRAOGENA DITISSIMA, n. sp.

Black, with a metallic tinge, shining, elytra having on each side two coppery bands, the first of which extends on the second and third costæ and the other on the eighth and ninth, and also on the outer margin; head very closely punctate; prothorax nearly parallel, but slightly attenuate laterally towards the anterior angles, covered with very closely set, somewhat deep, round punctures, and having in the centre of the posterior part an elongated, narrow, smooth space somewhat obsolete; elytra striate, striæ deeply and very closely punctate, intervals narrow, sharply costate from base to apex, and with the punctures of the striæ slightly impinging on the sides of the costæ.

Allied to *P. splendens*, Mäkl., but narrower, the coppery bands on the elytra are differently disposed; the elytra are narrower; the prothorax is also narrower and more parallel, and closely punctate instead of being nearly smooth.

Length 14–15½ mm.; width 4½–5 mm.

Hab. Cape Colony (Kimberley), L. Péringuey. Bechuanaland (Ramoutsa), Miss Gould. Transvaal (Rustenburg, Waterberg), Pretoria Museum.

PRAOGENA AFFINIS, n. sp.

Black, with the elytra purplish and the outer margin greenish, oftener than not they have a slight bluish tinge on the third to sixth intervals; head covered with deep, round punctures separated by an interval about equal in width to their diameter; prothorax as broad as long, plainly attenuate laterally in the anterior part and slightly sinuate in the posterior, covered with very closely set, deep punctures separated by a very narrow and very slightly raised interval, and having a median longitudinal impressed line quite plain in the posterior part but obliterated in the anterior; elytra deeply and narrowly striate, the striæ finely, yet deeply punctate, and the intervals narrow, tectiform on the disk and sides, and very faintly punctulate.

Allied to *P. festiva*, and nearly similar in shape and colour, but the prothorax is more attenuate laterally towards the apex, much more deeply and roughly punctured, and the intervals of the elytra are more sharply costate.

Length 14–15 mm.; width 5–5¼ mm.

Hab. Natal (Frere), G. A. K. Marshall. Transvaal (Klerksdorp,

E. G. Alston ; Pretoria, Miss Schunke ; Potchefstroom, T. Ayres). Orange Colony (Vredefort), Capt. Barrett-Hamilton. Cape Colony (Burghersdorp), Dr. D. T. Kannemeyer.

PRAOGENA NATALENSIS.

Colour, shape, and size of *P. affinis* ; the difference consists in the absence of a median longitudinal impressed line on the prothorax, the punctures of which are also deep but somewhat less closely set in the discoidal anterior part ; the elytra have also the bluish tinge on the median dorsal costæ, but the latter are more plane and more distinctly punctulate especially in the female.

Length 15 mm. ; width 6 mm.

Hab. Natal (Durban), C. N. Barker ; (Frere), A. E. Hunt ; (Estcourt), E. Haviland.

PRAOGENA CAPICOLA, n. sp.

Chestnut-brown, with the prothorax fuscous and the elytra dark chestnut with a metallic tinge turning to purplish with a faint greenish dorsal band ; head irregularly punctate ; prothorax small, rounded laterally in the anterior part and plainly sinuate above the base, covered with closely set, round punctures, leaving a plain, smooth, narrow longitudinal median line, slightly more obliterated in the anterior than in the posterior part ; elytra punctato-striate with the intervals costate, tectiform, and punctulate.

Length 12–14½ mm. ; width 4–5½ mm.

Hab. Cape Colony (Worcester), J. Lycett, L. Péringuey ; (Kei River ; Transkei, Kentani), Dr. Kolbe ; (Port Elizabeth), J. L. Drège.

PRAOGENA BECHUANA, n. sp.

Black, with the elytra alternately banded transversely with somewhat dull purple and green ; the head is closely and irregularly punctulate, the prothorax is sub-parallel laterally, but slightly sinuate above the basal angle, very closely punctate with the punctures deep and having in the centre an impressed line very plain in the posterior part, and obliterated in the anterior ; the costæ of the elytra are sharply tectiform and plainly punctate, and the purplish transverse bands are narrower than the green ones on the dorsal part, but broaden considerably towards the outer margin.

I have seen one example only of this easily recognisable species.

Length 12 mm. ; width 4 mm.

Hab. Cape Colony (Kuruman). Miss Herold.

PRAOGENA GLORIOSA, n. sp.

Piceous-red, with the femora red, elytra greenish-blue ; head punctulate ; prothorax slightly rounded laterally, closely punctate with the intervals smooth ; elytra narrowly costate with the intervals filled from the base to the median part with wide, almost foveate punctures impinging on the much-reduced costæ, from the median part to the apex these punctures resume their usual shape, and the costæ are very sharp.

The sculpture of the elytra closely resembles that of *Lamprobothris fossulata*, Müll. ; the shape of the elytra is, however, that of *Praogena*.

Length 10 mm. ; width 3 mm.

Hab. Transvaal (Waterberg). Pretoria Museum.

PRAOGENA TIMIDA, n. sp.

Piceous, elytra and legs piceous-brown, the former without metallic tinge, but very shining ; antennæ very long, chestnut-brown ; head and prothorax closely punctulate, the latter is slightly ampliate and rounded laterally, and more attenuate towards the basal part than towards the anterior, there is a very faint, longitudinal impunctate line in the centre of the disk, and a conspicuous round impression on each side : elytra of the normal shape, sharply costate for two-thirds of the length, and the striæ very deeply punctate for the same length, the intervals are impunctate.

Length 11 mm. ; width $3\frac{1}{2}$ mm.

Hab. Cape Colony (Port Elizabeth). J. L. Drège.

The shape of the antennal joints of this species are very much like those of *Dysgena*.

GEN. DYSGENA, Mäkl.

DYSGENA DURBANIA, n. sp.

Dark chestnut-brown, elytra with a metallic tinge, and covered on the upper surface with a long greyish pubescence, which is shorter and more appressed underneath, as well as on the legs ; head deeply and contiguously punctured, eyes transverse ; antennæ slender, third joint slightly longer than the fourth ; prothorax roundly ampliately laterally and with the lateral marginal keel hardly visible, moderately convex but plainly depressed longitudinally in the centre, and very roughly shagreened ; scutellum triangular ; elytra sinuate laterally, only moderately acuminate behind, deeply striate with the punctures

conspicuous from the base to two-thirds of the length and the intervals plane on the back, tectiform on the sides and posterior part, and sharply punctate-scabrate.

This species is more parallel and more slender than *D. lugubris*, the elytra are more parallel, the pubescence is very much longer on the upper side, the more tectiform costæ of the elytra are plainly more scabrose, and the prothorax has no traces of an outer marginal keel.

Length 13–14 $\frac{3}{4}$ mm.; width 4 $\frac{1}{2}$ –5 $\frac{1}{2}$ mm.

Hab. Natal (Durban). Col. J. H. Bowker.

DYSGENA DECIPIENS, n. sp.

Fuscous-black, with the elytra dark chestnut-brown, the head and prothorax are covered with a very short appressed greyish pubescence, the same appressed pubescence is also found on the elytra, but is denser there and almost hides the colour of the background; the slender antennæ are ferruginous with the exception of the basal joint which is fuscous; closely allied to *D. durbania*, the prothorax is similar in shape, but it is less coarsely shagreened, and it has a very plain outer marginal keel; the intervals between the punctate striæ are much more plane even on the sides and the posterior part, and more closely and finely scabrose.

Length 15 mm.; width 5 $\frac{1}{4}$ mm.

Hab. Natal (Durban). J. P. Cregoe.

DYSGENA PLEBEIA, n. sp.

Chestnut-brown, not metallic; head and prothorax clothed with greyish flavescent hairs, head roughly but not closely punctured in the frontal part, but more closely in the anterior and on the neck; prothorax a little dilated laterally and also more rounded in the anterior than in the posterior part, sharply carinate laterally and covered with irregular, deep punctures closely set and separated by equally irregular, raised walls; scutellum closely punctate; elytra sub-parallel with the striæ plainly punctured for two-thirds of the length, the intervals are plane, scabrose-punctate in the anterior part, and scabrose behind, each one of these punctures bear a somewhat long hair; the pubescence on the legs is nearly as long as on the elytra, and the third antennal joint is in one of my examples very slightly shorter than the fourth, and longer in another.

Allied to *D. decipiens*, but the antennæ are less slender, the prothorax is not impressed longitudinally, is much more roughly and

deeply punctured, and the intervals on the elytra are more deeply and much less closely scabrose-punctate.

Length 14–18 mm. ; width 5–6 mm.

Hab. Transvaal (Pietersburg). A. J. T. Janse.

DYSGENA DELAGOANA, n. sp.

Chestnut-brown, but as often as not rusty-red ; antennæ and legs lighter in colour than the upper side ; head, prothorax, and elytra pubescent, the pubescence flavescent and erect ; head covered with somewhat wide and deep irregular punctures ; prothorax plainly rounded and amplified laterally in the anterior part, carinate on the sides, not impressed longitudinally in the middle, strongly but evenly shagreened ; elytra sub-parallel, deeply punctate-striate from the base to two-thirds of the length, with the intervals costate in the anterior third part of the length, planer thence to the apex and having one single series of setigerous scabrose punctures which are much more transverse in the posterior part.

This species is closely allied to what I take to be *D. pilosula*, Müll., variety, “ pronoto lateribus paulo magis rotundato-dilatatis.” It differs, however, in the more deeply shagreened and more rounded prothorax, which is also not impressed longitudinally above the scutellum ; the fourth basal joint of antennæ is slightly shorter than the third.

Length 10–11 mm. ; width $3\frac{1}{2}$ mm.

Hab. Mozambique (Lourenço-Marques). J. de Coster.

DYSGENA FOVEATICOLLIS, n. sp.

Shape, colour, and size of *D. delagoana*, the vestiture is also similar, but the prothorax, which has the same shape as *D. delagoana*, is covered with round, nearly contiguous punctures without any raised intervals, there is a plain longitudinal median impression, deeper in the posterior than in the anterior part of the disk, and on each side a distinct, impressed round median spot equi-distant from the median impression and the outer keeled margin ; the sculpture of the elytra is almost similar to that of *D. delagoana*, and the fourth antennal joint is also slightly shorter than the third.

Length 11–13 $\frac{1}{2}$ mm. ; width $3\frac{1}{4}$ –4 $\frac{1}{4}$ mm.

Hab. Cape Colony (Kowie). Transvaal (Johannesburg). J. P. Cregoe.

DYSGENA CAPICOLA, n. sp.

Testaceous-red, with the elytra slightly paler than the head and prothorax ; head closely and moderately deeply punctate ; prothorax very slightly rounded and amplified laterally in the anterior part, covered with somewhat broad, deep punctures, separated by slightly raised intervals, above the scutellum there is a slightly depressed space but no longitudinal impression, and there is no visible pubescence ; elytra sub-parallel, slightly sinuate laterally before the median part, deeply punctate-striate from the base to two-thirds of the length, intervals convex and sub-rectiform in the anterior part, less so in the posterior and closely scabrose, each granule bearing a very minute flavescent hair ; the pubescence on the legs and abdomen is extremely short and fine, but very dense.

Length $11-12\frac{1}{2}$ mm ; width $4-4\frac{1}{4}$ mm.

Easily distinguished from the other allied species, *D. foveicollis* and *D. delagoana*, by the hairless prothorax and the extremely short pubescence on the elytra, the scabrose granules on the intervals of which are also more numerous.

Hab. Cape Colony (Worcester). L. Péringuey.

DYSGENA LUCTUOSA, n. sp.

Entirely black, opaque ; head roughly foveate-punctate ; third joint of antennæ much longer than the fourth ; prothorax plainly amplified and rounded laterally, sharply carinate all round, not impressed longitudinally in the centre, covered with round, foveate punctures divided by a narrow, sharp interval, from which spring greyish, sub-appressed hairs ; scutellum sparingly punctate ; elytra plainly sinuate laterally before the median part, very narrowly striate, the punctures small but deeper in the anterior part, the intervals plainly tectiform and covered with two or three somewhat irregular rows of minute, sharp granules, bearing each a fairly long greyish hair ; under side very briefly pubescent.

Length $13\frac{1}{2}-17$ mm. ; width $5\frac{1}{2}-5\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Umtali). A. Bodong.

DYSGENA SERVILIS, n. sp.

Entirely black, elytra moderately shining ; it is larger than *D. luctuosa*, but the shape is the same ; it is also clothed with greyish hairs ; the prothorax, however, is rougher ; the elytra are much more deeply striate and the intervals more raised and more

roughly transversely scabrose; the third joint of the antennæ is much longer than the fourth.

This species is probably closely allied to *D. scabripennis*, Gerst., recorded from the island of Zanzibar and from Bagamoyo, but the third and fourth antennal joints are not sub-equal in length.

Length $17\frac{1}{2}$ –21 mm.; width $6\frac{1}{2}$ –8 mm.

Hab. Southern Rhodesia (Sebakwe), D. Dods. Nyasaland.

DORELOGENA, n. gen.

Mentum and buccal organs of *Praogena*, the mentum, however, is carinate in the centre of the outer face but not grooved; the shape of the head is nearly alike, the antennal crests being also very long; the eyes are more transverse; the five basal joints of the antennæ are almost glabrous, the others briefly pubescent, and, with the exception of the ultimate one, shorter, more massive, not projecting inwardly more than outwardly at apex, the last joint is slightly shorter than the two preceding taken together; prothorax marginate all round, wider than long, plane, bi-sinuate along the base; scutellum short, triangular; elytra sub-parallel, slightly convex in the posterior part, punctate-striate; prosternum with a sharply mucronate vertical process close to the basal margin; legs and abdomen as in *Praogena*.

The distinctive generic characters are the shorter and more robust antennal joints, the third of which is longer than the fourth, and the prosternal process. The facies and colouring differ much from those of *Praogena*.

DORELOGENA CASTANEA, n. sp.

Chestnut-brown, shining, not metallic; head closely punctulate, supra-antennal crests longitudinal, very long; the five basal antennal joints are almost glabrous; the others covered with a very short, dense pubescence; prothorax roundly amplified near the median part, slightly diagonal from the median part to the outer basal angle which is sharp, but not projecting, carinate all round, grooved along the basal margin from a certain distance from the outer angle, hardly convex, one-fourth broader than long, very closely punctulate with the intervals smooth and plane; scutellum short, not distinctly punctate; elytra sub-parallel, only very slightly sinuate laterally, plane, slightly convex in the posterior declivity, narrowly striate, the striæ with small punctures, intervals somewhat convex but not tectiform and very closely punctulate; abdomen strigillate-

punctulate, epimera deeply punctate ; pectus finely strigillate ; legs very closely punctulate.

Length 16 mm. ; width $5\frac{1}{4}$ – $5\frac{3}{4}$ mm.

Hab. Southern Rhodesia (Sebakwe), D. Dods. Damaraland, W. C. Palgrave.

DORELOGENA ANGUSTA, n. sp.

Ferruginous-red, shining, the five apical joints of the antennæ black, the others ferruginous ; much more slender than the preceding species, from which it differs by the slightly shorter joints of the antennæ which, on that account, seem more knobby, the prothorax which is quite parallel and as broad as long, and the more tectiform interval of the elytra ; the punctuation on the prothorax is a little deeper, and not so closely set.

Length 10 mm. ; width 3 mm.

Hab. Southern Rhodesia (Sebakwe), D. Dods.

ASEMOGENA, n. gen.

Buccal organs of *Dorelogena*, but the ultimate joint of the maxillary palps is much less broad, and a little less obliquely truncate ; the antennæ are slightly more slender, but the shape of the joints is the same ; the prothorax is plainly amplified and rounded laterally with the anterior angles almost rounded, and the posterior sharp and projecting.

These generic characters may seem slight, yet the whole group *Strongyliina* is so homogeneous that a difference in the shape of the prothorax, which is really the main distinctive character from *Dorelogena*, has some importance. -

ASEMOGENA SIMPLEX, n. sp.

Chestnut-brown, moderately shining ; head deeply and closely punctate, the punctures are round and the intervals plane ; prothorax very plainly rounded and amplified laterally, sinuate above the base the angle of which is sharp and projecting, slightly convex in the posterior part, sloping forwards, finely and closely punctate, sharply marginate all round, and having a fine median longitudinal impressed line, elytra sub-parallel, slightly sinuate laterally, deeply punctato-striate from the base to the top of the posterior declivity, and less deeply thence, the intervals are convex, tectiform for the greatest part of the length, and finely yet deeply punctulate, abdomen

and legs aciculate, the sides of sternum and episterna are deeply and closely punctate.

Length $10\frac{1}{4}$ –13 mm.; width $4\text{--}4\frac{1}{2}$ mm

Hab. Cape Colony (Kowie), Dr. Becker; (King William's Town), R. M. Lightfoot.

ASEMOGENA HUMILIS, n. sp.

Chestnut-brown, elytra chestnut-red; very closely allied to the preceding species; the punctuation on the head and prothorax is identical, but the prothorax is more equally rounded laterally in the middle, and therefore less deeply sinuate above the basal angle, which is also sharp, but less than in *A. simplex*; the striæ of the elytra are less deeply punctate in the anterior part, and the intervals less sharply tectiform and only slightly aciculate.

Length 10–11 mm.; width $3\frac{3}{4}$ –4 mm.

Hab. Cape Colony (Montagu), W. Prosser.

FAMILY MYLABRIDÆ.

GEN. MELOË, Lin.

MELOË RHODESIANUS, n. sp.

Male: Dark blue, shining; head very sparsely punctate and having a longitudinal impression with a fine line in the centre reaching from the median frontal part to the arcuate impression of the epistome, the latter and also the labrum are somewhat more closely punctured than the frontal part; antennæ long, with the fifth to seventh joints dilated and sixth and seventh somewhat scooped inwardly; prothorax twice as long as broad, wider at a short distance from the apex than across the base, with the sides nearly straight but slightly constricted behind the amplified part, the anterior part obliquely narrowed, base slightly arcuate and with two moderately deep impressions above the median part, the disk is sparingly punctate, the punctures are slightly more dense in the anterior part, and there are very few of them in the centre of the posterior part above the two basal impressions; elytra not broader than the prothorax at the base, gradually amplified thence towards the median part, nearly straight from there to the apex, strongly divaricating behind, and covered with wavy, plainly raised, longitudinal folds which are continuous from the base to near the apex, except on the sides where they are more irregular; abdomen deeply

and very closely punctured, each puncture bearing a short, black hair; legs closely punctured and having a very short greyish pubescence.

Length 15 mm.; width $5\frac{1}{2}$ mm.

Allied to *M. hottentotus*, Péring., which it very closely resembles, but it differs in the head and prothorax being much less numerously punctured, the punctures being broadly scattered instead of closely set, and also more shallow; the wavy folds of the elytra are more raised in *M. hottentotus* than in *M. rhodesianus*.

Hab. Southern Rhodesia (Umtali). A. Bodong.

GEN. MYLABRIS, Fabric.

MYLABRIS (CEROCTIS) MOSAMBICA, n. sp.

Black, with the nine apical joints of the antennæ red; elytra with two basal and one apical reddish-yellow patches, and two broad transverse bands, the antemedian one of which is connected along the suture with the basal patch; head clothed with long black hairs, slightly flavescent on the vertex, deeply punctate and having a very plain longitudinal median smooth line in the centre; prothorax of the normal shape, clothed partly with flavescent and partly with black hairs, carinulate longitudinally from the base to the median impression, the basal impression is well defined, and the surface is deeply and closely punctate; scutellum finely punctate; elytra sub-cylindrical and with three fine, longitudinal costules on each side, covered with nearly contiguous, somewhat deep, but not broad punctures, clothed on the black background with appressed black hairs and on the reddish-yellow with flavescent ones; the first basal patch is arcuate and extends for two-thirds of the width as far as the suture, which it invades, and is there somewhat broadly connected with the wide antemedian fascia, the second basal one extends under the shoulders along the outer margin, but is not quite connected with the first transverse band which is bi-sinuate, especially on the hind margin, the latter reaching the median part of the disk, and extends from the suture, which it invades completely, to the very edge of the outer margin, the second transverse band is narrower than the first, bi-sinuate, broader near the suture, which it does not invade quite completely, the apical patch consists really of two amalgamated ones, the upper part of the one being supra-apical, the lower part of the other marginal; abdomen clothed with flavescent hairs, the hairs on the pectus and on the legs are partly black and partly

flavescent; the eight penultimate antennal joints are very strongly serrate, and in the male almost pectinate, even more so than in *M. serrata*, Gerst.

A very distinct species.

Length 23–24½ mm.; width 8½–9 mm.

Hab. Mozambique (Lourenço-Marques), L. Péringuey; (Rikatla), Rev. H. Junod.

GEN. DECATOMA, Cast.

DECATOMA VEXATOR, n. sp.

Black; antennal joints black, strongly serrate; head and prothorax clothed with a silky flavescent pubescence; elytra with three transverse yellow bands extending from the suture to the outer margin, and a round supra-apical patch throwing out a small ramus towards the outer margin, the basal band, the hind edge of which is strongly bi-sinuate, coalesces with the antemedian band, which is strongly tri-sinuate and emits, along the outer margin, a somewhat long ramus which does not quite reach the post-median band, which is also strongly tri-sinuate, the part along the outer margin is also produced towards the posterior part; the sculpture is that of *M. aliena*, Péring., but in the latter the transverse yellow bands on the elytra are not so jagged, nor are they produced laterally along the outer margin, and the supra-apical patch does not emit a ramus; the disposition of these bands on the elytra are not unlike those of *M. lacerata*, Péring., but the bands themselves are narrower, and the sculpture is different. The lateral part of the bands and also the apical patches are somewhat orange instead of pale yellow, as on the disk.

Length 10 mm.; width 4 mm.

Hab. Transvaal (Pietersburg). A. J. T. Janse.

DECATOMA TRANSVAALICA, n. sp.

Black, with the head, prothorax, scutellum, abdomen, pectus, and legs clothed with a very dense, silky, yellowish pubescence; antennæ black with the exception of the third, fourth, and fifth joints, which are red; head somewhat broadly and deeply punctate, and with a faint, short, smooth line abutting on the transverse impression of the epistome; prothorax of the normal shape, covered with contiguous, deep, not broad but slightly scrobiculate punctures, and having a very slight median impression; scutellum closely punctate; elytra sub-cylindrical, hardly wider across the posterior part than at

the base, finely shagreened, bi-costulate on each side in the dorsal part, clothed with an appressed, brief, slightly flavescent pubescence, pale-, somewhat straw-coloured yellow with a redder or fulvous outer margin, and having on each side a narrow humeral longitudinal black band, two series of three equi-distant spots or patches disposed diagonally from the suture to the outer margin, and a supra-apical band diagonal patch consisting evidently of two agglomerated patches the lower part of which reaches the outer margin and is continued as a narrow band along the apical edge; in the two diagonal rows of patches the one near the suture is the smallest, and the third one near the margin the broadest, but both are equi-distant from suture or outer margin.

Easily recognised by the colour of the antennæ. In general colouring this species is not unlike *M. groendali*, Billb., which is, however, a *Cerectis*.

Length $9\frac{1}{2}$ –10 mm. ; width 4 mm.

Hab. Transvaal (Waterberg District), Pretoria Museum ; (Zoutpansberg), A. J. T. Janse.

PARACTENODIA, n. gen.

Characters of *Actenodia*, Casteln., from which it differs in the number of antennal joints, which is seven instead of eight.

PARACTENODIA PARVA, n. sp.

Black, with the nine ultimate joints of the antennæ and the tibiæ red ; the elytra have in the anterior part an elongate yellowish-red patch extending from the base to the median part, and enclosing a longitudinal black band, and a transverse sinuate post-median band of the same colour, it is covered with a very short, appressed, silky, flavescent pubescence ; head deeply and closely punctate and with a faint, smooth, longitudinal area in the middle of the frontal part ; prothorax only moderately narrowed laterally in the anterior part, as broad as long, scrobiculate-punctate with the punctures very closely set, and plainly impressed longitudinally in the posterior part ; scutellum black ; elytra slightly sinuate laterally and slightly ampliate towards the posterior, coarsely shagreened, without any costules, the anterior elongated patch is formed by a longitudinal basal patch reaching the median bi-sinuate transverse band, which is disconnected from the suture, but continued upwards into a somewhat broad band along the outer margin as far as the humeral part, where it coalesces anew with the basal patch which has invaded all

the base, this basal band reaches the suture in the anterior part only, and the result of the amalgamation of this basal patch and band gives to the elytra the appearance of being yellowish-red from the base to the median part, except for a narrow strip along part of the suture, and enclosing a humeral, narrow black band, the second band is equi-distant from the first and from the apex, strongly sinuate, is narrowly disconnected from the suture but not from the outer margin; the antennæ are unmistakably 7-jointed, the last joint, which is nearly equal in length to the four preceding ones taken together, is very thick, but arcuate as in *Coryna*.

Length $4\frac{1}{2}$ –5 mm.; width $2\frac{1}{2}$ mm.

Hab. Cape Colony (exact locality unknown).

GEN. LYTТА, Fabric.

LYTTA DAMARINA.

Head covered with nearly contiguous foveolate briefly setigerous punctures, black with a red spot above the emargination of the eye, a frontal one, and a broad basal transverse band of the same colour; the labrum has an arcuate median emargination; antennæ black with the exception of the three basal joints, of which the first two and the basal part of the third are rufescent; prothorax strongly attenuate laterally in the anterior part, straight thence to the base which is marginate, having a median impression in the anterior part and a broader, deeper triangular one near the base, the whole surface is covered with contiguous, deep, slightly scrobiculate punctures, is very briefly pubescent, and has the two impressions filled with dense greyish-white hairs; scutellum clothed with similar hairs; elytra elongate, one-fourth broader than the prothorax at the base, parallel, singly rounded at apex, moderately convex, very closely and finely shagreened, clothed with a very brief, decumbent pubescence, and having a narrow margin of greyish-white hairs edging the suture and the outer margin, as well as a discoidal one which is very widely disconnected from base or apex; under side clothed with dense greyish-white hairs; legs shagreened, pubescent; apical spurs, claws, and basal part of first joint of posterior tarsi rufescent.

Length 14–15 mm.; width 5 mm.

Hab. Northern Damaraland. A. W. Eriksson.

LYTTA SPILOTELLA, n. sp.

Fuscous black, with the frontal part of the head, a broad discoidal patch on the elytra, a large patch on the metasternum and the femora

and tibiæ, with the exception of the apices which are infuscate, reddish with a fleshy tinge, elytra testaceous and sprinkled all over with irregular black spots; the whole body is covered with an appressed, greyish-white pubescence; head foveate-punctate, the palpi, labrum, and epistoma are black, and there is a frontal median black stripe reaching to about half the length of the frontal part showing a longitudinal raised area showing in relief; prothorax strongly stragulate in the anterior part, narrowly yet deeply grooved longitudinally in the median part, irregularly foveolate-punctate and having a smooth, median areolet on each side of the longitudinal groove, and another one somewhat less defined near the base; elytra elongated, sinuate laterally and slightly amplified in the posterior part, singly rounded at apex, and having in the dorsal part three plain costules, and another less well-defined, running parallel with the somewhat deplanate outer margin for the greater part of its length, the suture is as much raised as the outer margin; they are shagreened, but the appressed pubescence hides entirely the background, except the black spots, which are glabrous; antennæ black, short, barely reaching the humeral part; both claws of all the tarsi equally cleft.

Length 14 mm.; width $5\frac{1}{2}$ mm.

Hab. Transvaal (Waterberg District), Pretoria Museum.

FAMILY LAGRIIDÆ.

GEN. LAGRIA, Fabric.

- I. Species with the elytra moderately amplified laterally in the posterior part, and not greatly convex there in the female.

LAGRIA PROCERA, n. sp.

Female: Head, prothorax, and legs æneous, elytra and under side light chestnut-brown with a metallic tinge, antennæ black, the five basal joints metallic; head deeply punctured, the punctures separated by moderately smooth, irregular, raised intervals, there is a median impression in the anterior frontal part, and a sub-parallel, ill-defined one along the eyes; antennæ somewhat short, the four penultimate joints are gradually increasing in width, and are moderately closely set, the ultimate one is turbinate and half again as long as the penultimate; prothorax plainly amplified and rounded laterally, covered with round punctures separated by smooth intervals on the discoidal part, and by irregular, raised ones on the sides,

in the median part there is a nearly smooth longitudinal band reaching from base to apex, and it is covered, like the head, with long, but not dense, slightly flavescent hairs; scutellum densely pubescent; elytra somewhat quadrate in the anterior part, moderately amplified in the posterior, and showing no traces of costules, covered with irregular, transverse, smooth folds enclosing transverse series of somewhat closely but irregularly set small punctures; under side briefly pubescent.

Allied to *L. corrugata*, Péring.; the prothorax is, however, much more roundly amplified laterally, and the transverse folds on the elytra are much less raised, and also much less rugose.

Length 15–15 $\frac{3}{4}$ mm.; width 7 mm.

Hab. Southern Rhodesia (Manica). F. C. Selous.

LAGRIA PRÆDITA, n. sp.

Female: Bronze-black, with the elytra testaceous-yellow and the under side chestnut-brown, clothed on the upper side with an erect flavous pubescence forming also on the central part of the prothorax a distinct appressed band; head roughly punctate and having in the anterior frontal part a faint triangular impression; antennæ somewhat short and with the five penultimate joints very broadly transverse and closely set, last joint turbinate, short; prothorax only very slightly amplified laterally in the median part, deeply and closely punctate with the intervals smooth, raised, and irregular, there is a longitudinal median impunctate line; scutellum densely pubescent; elytra somewhat quadrate in the anterior part, only moderately amplified laterally behind, and covered, like *L. procera*, with a network of transverse, smooth folds, enclosing more or less transversely disposed, and deep, but not wide punctures; under side pubescent, legs villose.

Not unlike *L. procera*, but differently coloured and shorter, the prothorax is not amplified and rounded in the middle, and the transverse folds of the elytra are more raised.

Length 13 mm.; width 6 mm.

Hab. Mozambique (Rikatla). Rev. H. Junod.

LAGRIA PUSTULOSA, n. sp.

Ferruginous-brown, metallic, clothed with a greyish flavescent pubescence, dense and appressed in all the examples which I have examined (six); head closely punctate, scrobiculate in the anterior part; antennæ moderately long, but looking longer on account of

the short prothorax, which is slightly broader than long in the female, about equal in the male, not rounded laterally, deeply and closely punctate and with a very faint, median longitudinal smooth line, the sculpture, however, is hidden by the appressed pubescence; the five penultimate antennal joints are obconic rather than transverse in both the sexes, and slightly less closely set in the male, the ultimate one is turbinate in both, and hardly longer in the male than in the female; scutellum densely pubescent; elytra somewhat quadrate in the anterior part, amplified laterally in the posterior where they are one-fourth wider than across the base, closely punctate and with a network of transverse, smooth folds, irregularly interrupted and forming thus smooth raised, pustule-like spots.

This species is easily distinguished by its short appearance and the pustule-like raised spots on the elytra.

Length $6\frac{1}{2}$ – $7\frac{1}{2}$ mm.; width $2\frac{3}{4}$ – $3\frac{1}{2}$ mm.

Hab. Mozambique (Beira). P. A. Sheppard.

LAGRIA MASHUNA, n. sp.

Male: Black, with a metallic tinge, elytra bronze-green, the five basal antennal joints bronze-black, the others black, the whole surface clothed with a very dense, appressed, greyish-flavescent pubescence; head and prothorax foveolate-punctate; antennae somewhat short, with the joints sixth to eighth moniliform, ninth to tenth much more broadly transverse than the preceding; eleventh pyriform and nearly twice the length of the penultimate; prothorax one-third broader than long, slightly rounded laterally, a little narrower at the base than across the apex, and faintly impressed above the centre of the base; elytra sub-parallel for half the length, very little amplified in the posterior part, deeply and closely punctate, the punctures separated by narrow, raised, but smooth lines, the costules quite indistinct; under side and legs pubescent.

Length $7\frac{1}{2}$ – $9\frac{1}{2}$ mm.; width $3\frac{1}{2}$ – $4\frac{1}{4}$ mm.

The shape of this species is not unlike that of *L. villosa*, and it evidently belongs to the same group, but the sculpture of the prothorax is different, and the last antennal joints are more moniliform, and consequently less broadly transverse in *L. villosa*.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

LAGRIA RHODESIANA, n. sp.

Bronze-green, brighter on the upper than on the under side, and covered with a long, erect, yellow pubescence, more densely disposed

on the median part of the prothorax so as to form there a plain longitudinal band; head roughly punctulate on the vertex, scrobiculate in front; antennæ long, the four basal joints only metallic in the male, the joints five to ten are obconical, gradually increasing in width, not closely set, and the last one is as long as the four preceding taken together, in the female these joints are much more broadly transverse, more closely set, and the broad apical one is not equal in length to the two preceding taken together; prothorax slightly rounded laterally, and sinuate above the basal part, covered with closely set round punctures which are somewhat large on the sides and part of the disk, but very minute in the central part, especially towards the base, as these punctures are setiferous it follows that the hairs are denser there and thus form a flavous band; scutellum densely hairy; elytra only moderately amplified in the posterior part in both sexes, covered with deep, irregular punctures separated by raised, smooth, coalescing walls disposed transversely in wavy folds.

More parallel than *L. villosa*, the antennæ are much longer than in either that species or in *L. mashuna*; the sculpture of the head is different from the former, and the shape of the antennæ differentiates it at once from the latter.

Length 10–13 mm.; width $4\frac{1}{2}$ –5 mm.

Hab. Southern Rhodesia (Salisbury). G. A. K. Marshall.

LAGRIA IMITATRIX, n. sp.

Bronze-green, elytra occasionally reddish-bronze, antennæ dark blue, almost black; it is covered on the upper side with a short, greyish-white pubescence; head deeply and irregularly punctate and having a triangular, raised area in the anterior part; antennæ long and of the usual shape in both sexes, but not broadly transverse in the female, the apical joint is three times the length of the preceding one in the male, and as long as the two preceding taken together in the female; the prothorax is slightly longer than broad in both sexes, very little rounded laterally and hardly sinuate above the base, covered with irregular foveolate punctures, separated by irregular raised walls, forming a sort of scrobiculation, and in the centre of the disk there is a very faintly impressed longitudinal line, which is much more pronounced in the female; scutellum finely scrobiculate; elytra narrow and sub-parallel in the male for two-thirds of the length, and only slightly amplified thence, but much more amplified there in the female, covered with somewhat small

punctures separated by narrow, smooth, raised walls, disposed transversely in irregular, very wavy folds.

This species is also allied to *S. villosa*, but the elytra of the male are much less amplified behind, the triangular frontal patch is similar, but the prothorax is longer in proportion to its width, the antennæ are longer, and the punctuation, especially that of the elytra, is finer.

Length $8\frac{1}{2}$ –11 mm.; width $3\frac{1}{2}$ –5 mm.

In some examples the bronze-green of the elytra and occasionally of the prothorax turns into a dull coppery hue.

Hab. Southern Rhodesia (Salisbury).

LAGRIA LYDENBURGIANA, n. sp.

Dark cyaneous-blue, with the elytra bronze-green, clothed with a somewhat dense greyish, erect pubescence; antennæ long in the male, the five penultimate joints are closely set, strongly transverse, being nearly twice as broad as long, and the ultimate joint is elongated and as long as the five preceding joints taken together, in the female these joints are not so strongly transverse nor so closely set, and the apical one is not quite turbinate, and is as long as the two preceding taken together; head scrobiculate; prothorax longer than broad, sub-cylindrical, scrobiculate-punctate, and without any traces of median longitudinal line; scutellum short, deeply punctate; elytra slightly amplified laterally in the posterior part in both sexes, with the humeral angles plainly sloping in the female, not convex in the posterior part, finely and closely punctate, with the network of transverse folds quite plain, but not very much raised.

Allied to *L. propinqua*, Fähr., and *L. æneipennis*, Fähr., from which the male is easily distinguished by the shape of the last antennal joint, and the female by the less amplified elytra.

Length $7\frac{1}{2}$ – $8\frac{1}{2}$ mm.; width 3 – $3\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg). T. Ayres.

II. Species moderately or strongly amplified in the posterior part in the male, greatly amplified and very convex there in the female.

LAGRIA PROMONTORII, n. sp.

Head, prothorax, abdomen, and basal part of the femora light chestnut-brown, antennæ black, except the three basal joints which are metallic and reddish-brown, legs infusate, elytra light testaceous with a faint metallic sheen, covered all over the upper side with a very long, dense, light flavescent pubescence, partly appressed and

partly erect; head punctulate, with the arcuate transverse frontal impression very conspicuous, having across the eyes another, also arcuate impression; antennæ very long in both sexes, joints five to ten in the shape of an elongated truncate cone, nearly as broad as long at apex, and with the apical one slightly longer than the two preceding taken together and acuminate at the tip in the male; in the female the fifth to tenth antennal joints are similarly shaped, but shorter, and the ultimate one is not quite as long as the preceding two taken together; prothorax narrower in the male than in the female, rounded and amplified laterally in the anterior part, strongly constricted above the basal, impunctate on the discoidal, and without any traces of a median groove, while in the female there is a very plain longitudinal one in the centre only of the disk; scutellum small, punctulate; elytra sub-parallel in the male and only slightly amplified in the posterior part, broadly amplified and much more convex in the posterior part in the female, distinctly costulate, and faintly striate, very closely punctate and with irregular, transverse, very wavy raised folds; under side very briefly pubescent, the pubescence appressed and greyish-white; the two basal tarsal joints very long, especially in the male.

The difference in the sculpture of the thorax of the two sexes seems to be quite peculiar to this species.

Length $9-9\frac{1}{2}$ mm.; width $4-4\frac{3}{4}$ mm.

Hab. Cape Colony (Cape Town).

LAGRIA VITTATIPENNIS, n. sp.

Posterior part of the head fuscous black; prothorax deeply infusate except along the anterior and posterior margins, which are testaceous, scutellum and elytra testaceous, the latter with two fuscous bands, the first dorsal, the other supra-lateral, on each side, legs fuscous with the basal part of the femora and the apical part of the tibiæ testaceous; clothed above with a moderately dense, upright pubescence; antennæ black, long, the four penultimate ones robust, but not much transverse in the male, and with the apical one not quite as long as the three preceding taken together, in the female these joints, with the exception of the two penultimate, are somewhat elongated and slender, and the last one is not equal in length to the two preceding ones also taken together; head scrobiculate and having a triangular somewhat smooth ridge in the anterior part; prothorax longer than broad, cylindrical, scrobiculate-punctate; elytra slightly amplified in the posterior part in the male, strongly

so in the female where they are there twice as broad as across the base and strongly convex, they are closely foveolate-punctate, and the transverse folds are very little distinct on the discoidal part, and not strong on the lateral; under side briefly pubescent, legs moderately villose. In the male the intermediate and posterior tibiae are arcuate, and the inner angle of the intermediate ones is produced into a small hook.

Length $7\frac{1}{2}$ – $8\frac{1}{2}$ mm.; width $2\frac{3}{4}$ –4 mm.

Hab. Mozambique (Beira). P. A. Sheppard.

LAGRIA CAPICOLA, n. sp.

Male: Head and prothorax bronze-green, under side and legs reddish-bronze, elytra light testaceous-yellow, antennae black; it is clothed with an upright, moderately dense, greyish-white pubescence; head with a plain, semicircular impression in the anterior part, deeply scrobiculate there, less so laterally; antennae long, the six penultimate joints obconic, hardly transverse, last one not wider than the penultimate and as long as the preceding three taken together; prothorax as long as broad, visibly constricted in front and behind, roughly and irregularly punctate, scrobiculate on the sides, the basal margin is narrowly flavescent; scutellum bronze-green, roughly punctate; elytra moderately amplified laterally in the posterior part, without any costule, and with the network of transverse folds very plain; under side very shiny and very sparsely pubescent, legs villose; all the tibiae are strongly incurved, the posterior ones are strongly arcuate, and the inner angle of the intermediate ones has an apical elongated process diagonally truncate.

Length 8 mm.; width $3\frac{3}{4}$ mm.

Hab. Cape Colony (Stellenbosch). L. Péringuey.

LAGRIA ELIZABETHÆ, n. sp.

Black, with a faint metallic tinge, elytra dark cyaneous, upper and under side clothed with a fine, short greyish pubescence; antennae long in the male, shorter in the female; head roughly punctate and rugose, deeply impressed in the anterior part of the head; in the male the four penultimate antennal joints are sub-triangular, very broad at apex, almost serrate inwardly, and not set closely, the last joint is very sharp at tip and as long as the three preceding taken together, they are normal in the female; prothorax nearly cylindrical, slightly longer than broad in the male, shorter and slightly

narrowed laterally towards the base in the female, roughly punctate and having a median longitudinal carinule more distinct in the male than in the female; scutellum closely punctate; elytra moderately ampliate in the male, strongly so in the female, and also very convex in the latter, roughly foveolate-punctate in the half of the dorsal part and with the transverse folds less transverse than usual and scrobiculate thence to the outer margin; anterior tibiae of male hardly arcuate, intermediate dilated but not dentate inwardly at the apex, posterior bi-sinuate inwardly but not arcuate.

This species differs from *L. distincta*, Fähr., in the sculpture, the elytra especially being much more roughly punctate; the male is not as elongated as in *L. distincta*.

Length $8\frac{1}{2}$ –11 mm.; width 4 – $5\frac{1}{2}$ mm.

Hab. Cape Colony (Port Elizabeth, Knysna).

LAGRIA PLUMBEA, n. sp.

Black, elytra very dark or fuscous brown, the whole surface is covered with a very short, appressed, greyish-white silky pubescence, making it look lead colour; elytra strongly amplified behind and convex in both sexes, the male is hardly distinguishable from the female except by the ultimate antennal joint, which is not as long as the three preceding ones taken together; antennae moderately long, reaching beyond the humeral part; head very closely punctate and without traces of an anterior impression; prothorax short, wider than broad, not rounded laterally, but occasionally slightly narrower in the anterior part than in the posterior above the constricted basal part (I have, however, seen examples in which the median part is amplified laterally), the sculpture is hidden by the pubescence but there are two somewhat transverse impressions on the posterior part of the disk, and what seems to be a fine longitudinal median line; elytra deeply and closely punctate, with the transverse folds plain and somewhat closely set; under side and legs pubescent.

Length 7 – $8\frac{1}{2}$ mm.; width $3\frac{1}{2}$ – $4\frac{1}{2}$ mm.

Hab. Natal, Dr. H. Martin (Durban); C. N. Barker (Eshowe).

LAGRIA IMPRESSICOLLIS, n. sp.

Female: Colour and vestiture of *L. plumbea*, the elytra, however, are more elongated, equally amplified, but not quite so convex behind in the only example which I have seen; the sculpture is also identical, the difference, however, consists in the shape of the prothorax, which is also short, but is strongly constricted laterally at

about the median part, the constriction being continued on the discoidal part as two transverse impressions nearly coalescing in the centre, and above these impressions there is another median transverse one which is much shallower, and does not reach the sides.

Length 11 mm. ; width $5\frac{1}{2}$ mm.

Hab. Transvaal (Lydenburg). T. Ayres.

LAGRIA ANNECTENS, n. sp.

Female : Black, but with the elytra and legs occasionally brownish, clothed on the upper side with a short, appressed, greyish-white, somewhat silky pubescence ; antennæ long, somewhat slender, the two penultimate joints transverse, the others obconic ; elytra very broadly amplified behind and very convex there ; head very closely punctulate and without any raised lines or impressions in the anterior part ; prothorax plainly rounded laterally, not constricted along the base, very closely punctulate, and without any traces of a median longitudinal line or ridge, but having in the median discoidal part two very faint round impressions ; elytra closely and moderately deeply punctured, the transverse folds moderately raised ; under side not densely pubescent.

Length $8\frac{1}{2}$ –9 mm. ; width $4\frac{1}{4}$ –5 mm.

Hab. Transvaal (Lydenburg).

This species will be easily distinguished from *L. plumbea* by the rounded prothorax.

CORRECTIONS.

CARABIDÆ.

Umgenia, Péring., Trans. S. Afric. Phil. Soc., vol. x., 1898, p. 324 = *Metallica*, Chaud., Ann. Soc. Ent. Belg., 1872, p. 175.

Abacetus capicola, Tschisch., Hor. Soc. Ent. Ross., 1900, p. 284 = *Abacetus perturbator*, Pér., Catal. Coleopt. S. Afric., 1st Suppt., 1898, p. 359.*

Læmosthenes naniscus, Péring., Descript. Catal. Coleopt. S. Afric., 1896, p. 572, is a *Platynus*.

Extromus, Péring., Catal. Coleopt. S. Afric., 1896, p. 586 = *Perigona*, Cast.

Extromus pusillus, Péring., loc. cit., p. 587, greatly resembles, if it is not identical with, *Perigona nigriceps*, Dej.

I am indebted for the suggestion of this synonymy to Mons. A. Fauvel, who also informs me that *Perigona nigriceps* is sub-cosmopolitan.

TENEBRIONIDÆ.

Having been able to examine a number of Solier's, Haag Rutenberg's, and Fairmaire's types of this Family, and also all those of Fähræus, I am able to point out and correct the following errors:—

Stenocara distincta, Péring., Trans. S. Afr. Phil. Soc., 1888, p. 120 = *S. albicollis*, Haag Rut.

Cryptochile echinata, Péring., Ann. S. Afric. Mus., i., 1898, p. 249 = *C. echinata*, Fabr., teste Haag Rut., Mith. Münch. Ent. Ver., ii., 1878, p. 81.

Machla echinodermata, Fairm., Ann. Soc. Ent. Franc., 1897, p. 112.

Asida natalis, Péring., Ann. S. Afr. Mus., i., 1879, p. 259. } *Machla mendica*, Fähr., Öfv. Vet. Akad. Förh., 1870, p. 255.

Asida legitima, Péring., Ann. S. Afr. Mus., i., 1898, p. 266 = *Machleida nodulosa*, Fähr., loc. cit., p. 256.

Idricus, Fairm., Trans. S. Afr. Phil. Soc., iv., 1888, p. 199 = *Ametrocera*, Fahr., loc. cit., p. 260.

Idricus pacificus, Péring., Trans. S. Afr. Phil. Soc., vi., 1892, p. 122 = *Ametrocera aurita*, Fähr., loc. cit., p. 122.

* I have seen a type of Tschischerine's species; several other South African species published by this author will doubtless be found to be identical with some of mine.

- Psammodes adventitus*, Péring., Ann. S. Afr. Mus., i., 1899, p. 278 = *Psammodes volutus*, Haag Rut., Col. Heft. viii., 1871, p. 34.
- Psammodes cinctipennis*, Fairm., Bull. Soc. Vaud., xviii., p. 180 = *P. valens*, Péring., Ann. S. Afr. Mus., i., 1899, p. 276.
- Psammodes exilis*, Péring., Ann. S. Afr. Mus., i., 1899, p. 280 = *P. rugulosus*, Sol., Mem. de Tor., 1844, p. 305.
- Psammodes præstans*, Péring., Ann. S. Afr. Mus., i., 1899, p. 282 = *P. tricastatus*, Fähr., Öfv. Vet. Ak. Förh., 1870, p. 273.
- Psammodes junodi*, Fairm., Bull. Soc. Vaud., xviii., 1899, p. 179 = *P. junodi* Péring., Ann. S. Afr. Mus., i., 1899, p. 275.*
- Trachynotus (Clinocramon) latemarginatus*, Péring., Trans. S. Afr. Phil. Soc., iii., 1885, p. 116 = *Trachynotus stäli*, Haag Rut., Col. Heft. xi., 1873, p. 18.
- Trachynotus plicipennis*, Péring., Ann. S. Afr. Mus., i., 1899, p. 300 = *T. silphoides*, Fahr., loc. cit., p. 274.
- Trachynotus tantillus*, Péring., Ann. S. Afr. Mus., i., 1899, p. 301 = *T. pygmæus*, Fähr., loc. cit., p. .
- Trachynotidus manifestus*, Péring., Ann. S. Afr. Mus., i., 1899, p. 297 = *T. rufozonatus*, Fairm., Ann. Soc. Ent. Franc., 1888, p. 194.
- Epairops levigata*, Péring., Trans. S. Afr. Phil. Soc., vi., 1892, p. 55 = *Trachynotus frontalis*, Haag, Col. Heft. xi., 1873, p. 42.
- Moluris mulleri*, Péring., Ann. S. Afr. Mus., i., 1899, p. 269, is a *Psammodes*.
- Anomalipus marshalli*, Péring., Trans. Entom. Soc. Lond., 1896, p. 170 = *A. granatus*, Fairm., Annal. Soc. Ent. Belg., 1894, p. 662.
- Anomalipus notaticollis*, Péring., Trans. S. Afr. Phil. Soc., iv., 1888, p. 129 = *A. obscurus*,† Oliv., Entom., iii., No. 59, pl. 21.
- Zophodes tristis*, Fähr., Öfv. Vet. Ak. Förh., 1870, p. 298 = *Doryagus talpa*, Pasc., Ann. Mag. Nat. Hist., xx., 1887, p. 12.
- Xanthotopia fuscocyaneus*, Fairm., Ann. Fr., 1897, p. 136 = *Strongylium sulcipenne*, Mäkl., Act. Fenn., 1864, p. 302.
- Ghaleca lecta*, Péring., Ann. S. Afr. Mus., i., 1899, p. 316 = *Almyon prolatus*, Pasc., Journ. Entomol., ii., 1866, p. 484.

CERAMBYCIDÆ.

- Zamium rusticum*, Péring., Trans. S. Afr. Phil. Soc., vi., 1892, p. 77 = *Z. incultum*, Pasc., Journ. Entom., ii., 1866, p. 289.
- Philematium capense*, Péring. = *Philematium (Callichroma) hottentotum*, Buq. Guér., Iconogr., iii., p. 221.
- Cymatura mashuna*, Péring., Ann. S. Afr. Mus., i., 1899, p. 324 = *C. spumans*, Guér., Rev. Zool., 1847, p. 8.

* The Ann. S. Afr. Mus. were issued before the Bull. Soc. Vaud.

† I am not aware that the insect figured by Olivier, loc. cit., has been identified. I think that there is, however, little doubt that it is the female of my *Anomalipus notaticollis*.

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EXPLANATION OF PLATE XIII.

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- FIG.
 1, 2. *Micrantereus procursus*, ♂ ♀.
 3. ,, *vicarius*.
 4. ,, *hirsutus*, ♀.
 5, 6. ,, *gasanus*, ♂ ♀.
 7. ,, *lydenburgiensis*.
 8. ,, *zoutpansbergianus*.
 9. *Anomalipus gasanus*, ♂.
 10. ,, *mashunus*, ♂.
 11. *Catamerus manicatus*, ♂.
 12. ,, *gasanus*, ♂.
 13. *Hæmus carinatipennis*.
 14. *Psammodes zoutpansbergianus*.
 15. ,, *discrepans*.
 16. *Anchophthalmus salisburyensis*.



desig. Dujardin Paris

VIII.—*Description of a New Fish of the Genus Paratilapia, from the Upper Zambesi.* By G. A. BOULENGER, F.R.S.

(Plate XIV.)

ON a recent visit to the Victoria Falls, Mr. W. L. Slater obtained three fishes in the Zambesi, immediately above the falls, which he has kindly sent to me for examination. One, known as the Tiger Fish, is a Characinid, *Hydrocyon lineatus*, Blkr., widely distributed in Africa (from the rivers of Guinea to the Congo in the West, from the Blue and White Niles to the Limpopo in the East); the two others, generally known as Bream, and prized as excellent table fish, belong to distinct species of the Cichlid genus *Paratilapia*, Blkr. One of these, originally described by Günther as *Hemichromis robustus*, from Lake Nyassa, had previously been recorded by me from the Upper Zambesi under the name of *Hemichromis jallæ*, the description being based on a young specimen, which was afterwards identified by me with Günther's species as *Paratilapia robusta*. The other, which is allied to the Nyassan species *Paratilapia afra*, Gthr., and *P. modesta*, Gthr., represents a new species which I have much pleasure in naming after Mrs. Slater.

PARATILAPIA CARLOTTE.

Teeth small, in four series in both jaws, outer largest. Jaws equal. Depth of body $2\frac{1}{3}$ times in total length, length of head $3\frac{1}{3}$ times. Snout with slightly concave upper profile, $1\frac{1}{3}$ as long as the eye, which is $4\frac{1}{5}$ times in length of head and $1\frac{1}{2}$ in interorbital width; præorbital as long as eye; maxillary not quite extending to below anterior border of eye; four series of scales on the cheek, the depth of which is greater than the diameter of the eye; large scales on the operculum. Gill-rakers short, 12 on lower part of anterior arch, the largest T-shaped. Dorsal xv 12; spines increasing in length to the last, which measures nearly $\frac{2}{3}$ length of head and $\frac{1}{2}$ longest soft rays. Anal iii 10, pointed like the soft

dorsal; third spine longest, a little shorter than longest dorsal. Pectoral pointed, a little shorter than head, not reaching origin of anal. Ventral reaching first soft ray of anal. Caudal rounded. Caudal peduncle slightly deeper than long. Scales finely denticulate on the border, $33\frac{1}{11}$; lat. line $2\frac{3}{4}$. Colour, in formol, dark brown above, white beneath; dorsal, anal, and caudal fins with round black spots, most distinct and forming regular series between the rays, on the anal and on the base of the dorsal; a black opercular spot.

The single specimen measures 255 millimetres.

This new species differs principally from *P. afra* in the fin-formula (D. xv 12; A. iii 10, instead of D. xvii 8; A. iii 6-7), from *P. modesta* in the shorter snout and the non-projecting mandible.



IX.—*Check List of the Birds of South Africa, containing additions and corrections since the issue of the successive volumes of the Birds in the Fauna of South Africa Series.*—By W. L. SCLATER, M.A., F.Z.S, *Director of South African Museum.*

(1) INTRODUCTION.

THE following list is based on the three volumes of the Birds of South Africa hitherto published, while the remaining names are taken from the MSS. of the fourth volume now in the press.

Owing to various reasons the issue of the successive volumes of this work have been somewhat protracted. It has therefore been necessary to make a good many additions and alterations to the list of South African birds, especially in the earlier volumes.

The total number of birds described in the four volumes is 813; to this there are added twenty-two new species, including a certain number previously included in the fauna but recently discriminated and described under an old name now revived; fourteen species not previously found south of the Zambesi; two species known to be introduced from Europe; and twenty subspecies or geographical races; while five species recognised in the first two volumes must be erased. This is shown in the following table:—

Species described in the Fauna	814
New species	22
Species new to South Africa.....	14
Introduced	3
Subspecies	20
	<hr/>
	873
Less species to be eliminated	5
	<hr/>
Total species and subspecies of birds in South Africa	868

In the following list the numbers exactly correspond to those in the printed volumes. Additional species and subspecies have been denoted by the addition of a letter to the number of the species most nearly corresponding.

Where an asterisk is prefixed to a number further information will be found in the second part of the paper.

The distribution of each species in South Africa is approximately indicated by the capital letters, where CC. = Cape Colony, with N. north, S. south, W. west, and E. east, prefixed where necessary. N. = Natal, with sometimes U prefixed for Upper, as opposed to the Coastlands. Z. = Zululand. O. = Orange River Colony. Tv. = Transvaal. B. = Bechuanaland Protectorate. Rh. = Southern Rhodesia. G. = German South-West Africa. P. = Portuguese East Africa south of the Zambesi, including the territories of Delagoa Bay and Beira.

The following is a list of the more important works and papers that have appeared since the publication of the first volume of the Birds of South Africa in 1900:—

1. SHELLEY, G. E. *The Birds of Africa*. Vol. i., List, 1896. Vol. ii., Passeres Families, Pittidæ, Philepittidæ, Nectariniidæ, Promeropidæ, Zosteropidæ, Parisomidæ, Paridæ, Certhiidæ, and Motacillidæ, pt., 1900. Vol. iii., Motacillidæ, Alaudidæ, and Fringillidæ, 1902. Vol. iv., pt. i., Ploceidæ in pt., 1905. London, R. H. Porter, 8vo.
2. REICHENOW, ANT. *Die Vögel Afrikas*. Vol. i, Struthionidæ-Strigidæ, 1900-1901. Vol. ii., Psittacidæ-Sturnidæ, 1902-1903. Vol. iii., pt. 1, Ploceidæ-Pycnonotidæ, 1904 [not yet completed]. Neudamm, J. Neuman, 8vo.
3. WOODWARD, R. B. and J. D. S. *Natal Birds*. Pietermaritzburg, 1899, 8vo.
4. ALEXANDER, B. *An Ornithological Expedition to the Zambesi River*. *Ibis*, 1899, pp. 549-583, pl. xi.; 1900, pp. 70-109, pp. 424-458.
5. MARSHALL, G. A. K. *Notes on Mashonaland Birds*. *Ibis*, 1900, pp. 221-270.
6. SHARPE, R. B. *On a Collection of Birds obtained by Mr. H. S. H. Cavendish in Mozambique*. *Ibis*, 1900, pp. 109-115.

7. WOODWARD, R. B. and J. D. S. On the Birds of St. Lucia Lake in Zululand. *Ibis*, 1900, pp. 517-525.
8. HAAGNER, A. C. Birds'-nesting Notes from the Transvaal. *Ibis*, 1901, pp. 15-18. Ornithological Notes from the Transvaal. *Ibis*, 1901, pp. 190-194. More Ornithological Notes from the Transvaal. *Ibis*, 1902, pp. 569-581.
9. IVY, R. H. Notes on the Nesting and other Habits of some South African Birds. *Ibis*, 1901, pp. 18-28.
10. SHARPE, R. B. Remarks on *Pitta longipennis* Reichenow, and *Pitta reichenowi* Madarasz. *Ibis*, 1903, pp. 91-93, pl. iv.
11. WHITEHEAD, C. H. T. An Annotated List of Birds observed on the Orange River between Aliwal North and Odendaalstroom from December 21, 1901, to June 21, 1902. *Ibis*, 1903, pp. 222-238.
12. SHARPE, R. B. On a Collection of Birds from the District of Deelfontein, in Cape Colony. Part i., *Ibis*, 1904, pp. 1-29; Part ii., *Ibis*, 1904, pp. 313-367, pl. viii.
13. SCLATER, W. L. Saldanha Bay and its Bird Islands. *Ibis*, 1904, pp. 79-88.
14. SHORTRIDGE, G. C. On a Collection of Birds from the neighbourhood of Port St. Johns, in Pondoland. *Ibis*, 1904, pp. 173-208.
15. CLARKE, MAJOR S. R. Field-notes on Birds obtained or observed at Bloemfontein, O.R.C., and at Ingogo, Natal, in 1901 and 1902. *Ibis*, 1904, pp. 519-541.
16. SCLATER, W. L. An Ornithological Excursion to the Victoria Falls of the Zambesi. *Ibis*, 1905, pp. 106-114.
17. HELLMAYR, C. E. Übersicht der von Dr. A. Penther in Südafrika gesammelten Vögel. *Journ. f. Ornith.*, 1902, pp. 210-237.

(2) CHECK LIST OF THE BIRDS OF SOUTH AFRICA.

ORDER I.—PASSERES.

FAMILY I.—CORVIDÆ.

1. *CORVULTUR ALBICOLLIS* (Lath.), *White-necked Raven*.
Distr.—Throughout, except Damaraland.
2. *CORVUS SCAPULATUS* (Daud.), *Pied Crow*.
Distr.—Throughout.
3. *CORVUS CAPENSIS* (Licht.), *Black Crow*.
Distr.—Throughout, except Natal coastlands.

FAMILY II.—STURNIDÆ.

4. *BUPHAGA AFRICANA* (Linn.), *Yellow-billed Oxpecker*.
Distr.—UN. Z. Tv. Rh. B. G.
- *5. *BUPHAGA ERYTHORHYNCHA* (Stanley), *Red-billed Oxpecker*.
Distr.—N. Z. P. Tv. Rh.
- *6. *CREATOPHORA CARUNCULATA* (Gmel.), *Wattled Starling*.
Distr.—Throughout.
7. *AMYDRUS MORIO* (Linn.), *Red-winged Starling*.
Distr.—CC. N. O. Tv. Rh.
- *8. *AMYDRUS CAFFER* (Linn.), *Pale-winged Starling*.
Distr.—CC. O. G.
9. *SPREO BICOLOR* (Gmel.), *Pied Starling*.
Distr.—CC. O. UN. STv. B.
10. *LAMPROTORNIS MEVESI* (Wahl.), *Meye's Glossy Starling*.
Distr.—NG. Zambesi.
11. *LAMPROTORNIS PURPUREUS* (Boc.), *Purple Long-tailed Starling*.
Distr.—Ovampoland.
12. *LAMPROCOLIUS AUSTRALIS* (Smith), *Burchell's Glossy Starling*.
Distr.—NCC. O. Tv. Rh. B. G.
13. *LAMPROCOLIUS ACUTICAUDUS* (Boc.), *Sharp-tailed Glossy Starling*.
Distr.—Ovampoland.

14. *LAMPROCOLIUS PHENICOPTERUS* (Swains.), *Red-shouldered Glossy Starling*.
Distr.—ECC.
15. *LAMPROCOLIUS PHENICOPTERUS BISPECULARIS* (Strickl.), *Lesser Red-shouldered Glossy Starling*.
Distr.—N. Z. O. Tv. Rh. B. G.
16. *LAMPROCOLIUS CHLOROPTERUS* (Swains.), *Green-winged Glossy Starling*.
Distr.—L. Zambesi.
17. *LAMPROCOLIUS SYCOBIUS* (Licht.), *Peters' Glossy Starling*.
Distr.—Tv. Rh. B. G.
18. *LAMPROCOLIUS MELANOGASTER* (Swains.), *Black-bellied Glossy Starling*.
Distr.—ECC. N. Z. ETv.
- *19. *CINNYRICINCLUS LEUCOGASTER VERREAUXI* (Boc.), *Verreaux's Glossy Starling*.
Distr.—O. N. Z. Tv. P. Rh. B. G.
- *19A. *STURNUS VULGARIS* (Linn.), *English Starling*.
Distr.—Cape Peninsula (introduced).

FAMILY III.—ORIOLIDÆ.

20. *ORIOLUS GALBULA* (Linn.), *Golden Oriole*.
Distr.—SCC. N. Z. Tv. G.
21. *ORIOLUS NOTATUS* (Peters), *Andersson's Oriole*.
Distr.—Tv. Rh. P. B. G.
- *21A. *ORIOLUS AURATUS* (Vieill.), *African Golden Oriole*.
Distr.—Zambesi Valley.
22. *ORIOLUS LARVATUS* (Licht.), *Black-headed Oriole*.
Distr.—ECC. N. Z. Tv. Rh. P.

FAMILY IV.—PLOCEIDÆ.

- *23. *HYPHANTORNIS NIGRICEPS* (Layard), *Black-headed Weaver Bird*.
Distr.—NCC. N. Z. Tv. Rh. P. B.
24. *HYPHANTORNIS CABANISI* (Peters), *Cabanis' Weaver Bird*.
Distr.—N. Z. ETv. P. Rh. B. G.

25. *HYPHANTORNIS VELATUS* (Vieill.), *Masked Weaver Bird*.
Distr.—CC. O. N. Tv. Rh.
26. *HYPHANTORNIS SPILONOTUS* (Vig.), *Spotted-backed Weaver Bird*.
Distr.—ECC. N. Z. Tv. P. B.
- *27. *HYPHANTORNIS AURICAPILLUS* (Swains.), *Shelley's Weaver Bird*.
Distr.—Tv. Rh. B. G. P.
28. *HYPHANTORNIS SUBAUREUS* (Smith), *Yellow Weaver Bird*.
Distr.—ECC. N. Z. ETv. P.
- *29. *HYPHANTORNIS JAMESONI* (Sharpe), *Jameson's Weaver Bird*.
Distr.—ETv. Rh.
30. *SITAGRA OCULARIA* (Smith), *Smith's Weaver Bird*.
Distr.—ECC. N. Z. ETv. P.
31. *SITAGRA XANTHOPTERA* (Finsch & Hartl.), *Yellow-winged Weaver Bird*.
Distr.—LZambesi.
32. *SITAGRA CAPENSIS* (Linn.), *Cape Weaver Bird*.
Distr.—WCC.
- *33. *SITAGRA CAPENSIS OLIVACEA* (Hahn), *Eastern Cape Weaver Bird*.
Distr.—ECC. N. Z. ETv. P. Rh.
- *34. *SYCOBROTUS GREGALIS* (Licht.), *Black-backed Weaver Bird*.
Distr.—ECC. N. Z.
35. *SYCOBROTUS STICTIFRONS* (Fischer & Reichw.), *Spot-headed Weaver Bird*.
Distr.—P.
36. *ANAPLECTES RUBRICEPS* (Sundev.), *Red-headed Weaver Bird*.
Distr.—P. ETv. Rh.
37. *ANAPLECTES GURNEYI* (Shelley), *Gurney's Weaver Bird*.
Distr.—Ovampoland.
38. *ANAPLECTES ANGOLENSIS* (Boc.), *Sharpe's Weaver Bird*.
Distr.—Ovampoland.
39. *TEXTOR NIGER* (Smith), *Buffalo Weaver Bird*.
Distr.—P. Tv. Rh. B. G.

40. AMBLYOSPIZA ALBIFRONS (Vig.), *Thick-billed Weaver Bird*.
Distr.—ECC. N. Z. ETv. P.
41. PLOCEIPASSER MAHALI (Smith), *White-browed Weaver Bird*.
Distr.—NCC. G. B. O. Tv. Rh.
42. PLOCEIPASSER RUFOSCAPULATUS (Buttik.), *Red-backed Weaver Bird*.
Distr.—Ovampoland.
43. PLOCEIPASSER PECTORALIS (Peters), *Stripe-chested Weaver Bird*.
Distr.—Zambesi. P.
44. SPOROPIES SQUAMIFRONS (Smith), *Scaly-feathered Weaver Bird*.
Distr.—NCC. G. O. Tv. B. Rh.
45. PYTELIA MELBA (Linn.), *Southern Red-faced Weaver Finch*.
Distr.—Throughout except CC. south of Orange River.
46. PYTELIA NITIDULA (Hartl.), *Hartlaub's Red-faced Weaver Finch*.
Distr.—N. Z. P.
47. LAGONOSTICTA RUBRICATA (Licht.), *South African Ruddy Waxbill*.
Distr.—ECC. N. Z. Tv.
48. LAGONOSTICTA JAMESONI (Shelley), *Jameson's Ruddy Waxbill*.
Distr.—Tv. Rh.
- *48A. LAGONOSTICTA RHODOPAREIA (Heugl.), *Heuglin's Ruddy Waxbill*.
Distr.—P.
- *49. LAGONOSTICTA RENDALLI, Hartl., *Little Ruddy Waxbill*.
Distr.—N. Z. Tv. Rh. G.
50. LAGONOSTICTA NIVEOGUTTATA (Peters), *Peters' Ruddy Waxbill*.
Distr.—P.
51. LAGONOSTICTA MARGARITATA (Strickl.), *Verreaux's Ruddy Waxbill*.
Distr.—Cape Town.
- *51A. LAGONOSTICTA NITIDULA (Hartl.), *Brown Waxbill*.
Distr.—Upper Zambesi.

- *52. ESTRILDA ASTRILDA (Linn.), *Common Waxbill*.
Distr.—CC. N. O. Tv.
- *52A. ESTRILDA ASTRILDA CAVENDISHI, Sharpe, *Cavendish's Waxbill*.
Distr.—P.
- *52B. ESTRILDA ASTRILDA DAMARENSIS, Reichw., *Damaraland Waxbill*.
Distr.—G.
53. ESTRILDA ERYTHRONOTA (Vieill.), *Black-faced Waxbill*.
Distr.—Tv. B. Rh. G.
54. ESTRILDA INCANA (Sundev.), *South African Grey Waxbill*.
Distr.—N. Z. P.
- *55. ESTRILDA ANGOLENSIS (Linn.), *Blue-breasted Waxbill*.
Distr.—NCC. O. N. Z. Tv. P. Rh.
- *55A. ESTRILDA ANGOLENSIS DAMARENSIS (Reichw.), *Damaraland Blue-breasted Waxbill*.
Distr.—B. G.
56. ESTRILDA GRANATINA (Linn.), *Grenadine Waxbill*.
Distr.—NCC. Tv. Rh. B. G.
- *57. ESTRILDA CLARKEI (Shelley), *Orange-breasted Waxbill*.
Distr.—N. Tv.
58. ESTRILDA DUFRESNII (Vieill.), *Dufresne's Waxbill*.
Distr.—CC. N. Tv. Rh.
59. ORTYGOSPIZA POLYZONA (Temm.), *Bar-breasted Weaver Finch*.
Distr.—ECC. O. N. Tv. Rh.
60. SPERMESTES FRINGILLOIDES (Lafr.), *Pied Weaver Finch*.
Distr.—N. Z. P. Tv. B.
61. SPERMESTES SCUTATUS (Heuglin), *Hooded Weaver Finch*.
Distr.—ECC. N. Z. Tv.
62. SPERMESTES NIGRICEPS (Cassin), *Rufous-backed Weaver Finch*.
Distr.—N. Z. P.
- *63. PHILÆTERUS SOCIUS (Lath.), *Social Weaver Bird*.
Distr.—NCC. Tv. B. G.
64. AMADINA ERYTHROCEPHALA (Linn.), *Red-headed Weaver Finch*.
Distr.—NCC. O. Tv. Rh. B. G.

- *64A. *AMADINA FASCIATA* (Gmel.), *Cut-throat Weaver Finch*.
Distr.—Rh.
- *65. *QUELEA QUELEA* (Linn.), *Red-billed Weaver*.
Distr.—NCC. O. Tv. B. Rh. G.
66. *QUELEA QUELEA RUSSI* (Finsch), *Russ' Weaver*.
Distr.—N. ETv.
- *66A. *QUELEA CARDINALIS* (Hartl.), *Cardinal Weaver*.
Distr.—Zambesi.
67. *PYROMELANA ORYX* (Linn.), *Red Bishop Bird*.
Distr.—CC.
- *67A. *PYROMELANA ORYX SUNDEVALLI* (Bp.), *Northern Red Bishop Bird*.
Distr.—N. Z. Tv. Rh. B. G.
- *67B. *PYROMELANA FLAMMICEPS* (Swains.), *Zambesi Bishop Bird*.
Distr.—Zambesi.
68. *PYROMELANA TAHA* (Smith), *Taha Bishop Bird*.
Distr.—N. O. Tv. Rh. B. G.
69. *PYROMELANA CAPENSIS* (Linn.), *Black and Yellow Bishop Bird*.
Distr.—WCC.
- *70. *PYROMELANA CAPENSIS APPROXIMANS* (Cab.), *Smaller Black and Yellow Bishop Bird*.
Distr.—ECC. N. Z. O. Tv. Rh. P.
71. *PYROMELANA CAPENSIS XANTHOMELENA* (Rüpp.), *Black-thighed Bishop Bird*.
Distr.—Rh.
72. *UROBRACHYA AXILLARIS* (Smith), *Red-shouldered Widow Bird*.
Distr.—ECC. N. Z. ETv. P.
73. *UROBRACHYA BOCAGII* (Sharpe), *Bocage's Widow Bird*.
Distr.—Ovampoland.
74. *COLIOPASSER ALBONOTATUS* (Shelley), *White-winged Widow Bird*.
Distr.—N. Z. P. ETv. Rh.
- *74A. *COLIOPASSER MACRURUS* (Gmel.).
Distr.—Zambesi.

75. COLIOPASSER PROCNE (Bodd.), *Great-tailed Widow Bird*.
Distr.—ECC. N. Z. O. Tv. P.
76. COLIOPASSER ARDENS (Bodd.), *Red-collared Widow Bird*.
Distr.—ECC. N. Z. Tv. P. Rh.
77. VIDUA PRINCIPALIS (Linn.), *Pin-tailed Widow Bird*.
Distr.—Throughout.
78. VIDUA REGIA (Linn.), *Shaft-tailed Widow Bird*.
Distr.—NCC. O. B. Tv. Rh. G.
79. VIDUA PARADISEA (Linn.), *Paradise Widow Bird*.
Distr.—ECC. N. Z. ETv. Rh. P.
80. HYPOCHERA FUNEREA (De Tarragon), *Black Widow Finch*.
Distr.—N. Z. ETv. P. Rh.
81. HYPOCHERA FUNEREA NIGERRIMA (Sharpe), *Purple Widow Finch*.
Distr.—Zambesi.
82. HYPOCHERA FUNEREA AMAUROPTERA (Sharpe), *Steel-coloured Widow Finch*.
Distr.—Tv. Rh. P. G.

FAMILY V.—FRINGILLIDÆ.

- *83. PETRONIA PETRONELLA (Gray), *South African Rock Sparrow*.
Distr.—Throughout.
- *84. PASSER MELANURUS (P. L. S. Müll.), *Cape Sparrow*.
Distr.—Throughout except coastlands from Knysna eastwards and Damaraland.
- *84A. PASSER MELANURUS DAMARENSIS (Reichw.), *Damaraland Sparrow*.
Distr.—G.
- *84B. PASSER DOMESTICUS (Linn.), *European Sparrow*.
Distr.—Tv. LN. (introduced).
85. PASSER MOTITENSIS (Smith), *Greater South African Sparrow*.
Distr.—NCC. B. Tv. Rh. G.
- *86. PASSER GRISEUS (Vieill.), *Southern Grey-headed Sparrow*.
Distr.—NCC. O. UN. Tv. B. Rh.

87. *POLIOSPIZA GULARIS* (Smith), *Streaky-headed Seed-eater*.
Distr.—CC. G. B. N. Tv.
88. *SERINUS CANICOLLIS* (Swains.), *Cape Canary*.
Distr.—CC. O. N. Tv.
89. *SERINUS SULPHURATUS* (Linn.), *Large Yellow Seed-eater*.
Distr.—CC. O. N. Z. Tv.
- *89A. *SERINUS SHARPEI* (Neum.), *East African Yellow Seed-eater*.
Distr.—Zambesi.
90. *SERINUS FLAVIVENTRIS* (Swains.), *Yellow-bellied Seed-eater*.
Distr.—CC.
- *90A. *SERINUS MARSHALLI* (Shelley), *Marshall's Seed-eater*.
Distr.—NCC. O. Tv.
- *91 and 92. *ANOMALOSPIZA IMBERBIS* (Cab.), *Von der Decken's Seed-eater*.
Distr.—Tv. Rh. G.
93. *SERINUS ICTERUS* (Bonn. & Vieill.), *Eastern Yellow Seed-eater*.
Distr.—ECC. N. Z. O. Tv. Rh.
94. *SERINUS ALBIGULARIS* (Smith), *White-throated Seed-eater*.
Distr.—CC.
95. *SERINUS CROCOPYGIUS* (Sharpe), *Damara Yellow-rumped Seed-eater*.
Distr.—G.
- *96. *SERINUS LEUCOPTERUS* (Sharpe), *White-winged Seed-eater*.
Distr.—CC.
97. *SERINUS SCOTOPS* (Sundev.), *Sundevall's Seed-eater*.
Distr.—CC. N. Z. Tv.
98. *SERINUS ANGOLENSIS* (Gmel.), *Black-throated Seed-eater*.
Distr.—NCC. B. Tv. Rh.
- *99. *ALARIO ALARIO* (Linn.), *Mountain Canary*.
Distr.—CC. G.
100. *CHRYSOMITRIS TOTTA* (Sparrm.), *South African Siskin*.
Distr.—CC.
101. *EMBERIZA FLAVIVENTRIS* (Vieill.), *Golden-breasted Bunting*.
Distr.—ECC. N. Z. O. Tv. Rh. B. G.

- 101A. FRINGILLA COELEBS (Linn.), *Chaffinch*.
Distr.—Cape division (introduced).
102. EMBERIZA MAJOR ORIENTALIS (Shelley), *Shelley's Bunting*.
Distr.—Rh.
- *103. FRINGILLARIA CAPENSIS (Linn.), *Cape Bunting*.
Distr.—Tv. CC. G.
- *103A. FRINGILLARIA CAPENSIS MEDIA (Sharpe), *Deelfontein Bunting*.
Distr.—CC.
- *103B. FRINGILLARIA CAPENSIS REIDI (Shelley), *Natal Bunting*.
Distr.—N. Z. Tv.
104. FRINGILLARIA TAHAPISI (Smith), *Rock Bunting*.
Distr.—ECC. N. Z. O. Tv. B. Rh.
105. FRINGILLARIA IMPETUANI (Smith), *Lark Bunting*.
Distr.—CC. B. G. O. N. Tv.

FAMILY VI.—ALAUDIDÆ.

106. PYRRHULAUDA AUSTRALIS (Smith), *Dark-naped Lark*.
Distr.—CC. N. O. Tv. B. G.
107. PYRRHULAUDA VERTICALIS (Smith), *Grey-backed Lark*.
Distr.—NCC. O. Tv. G.
- *108. PYRRHULAUDA SMITHI (Bp.), *Smith's Lark*.
Distr.—NCC. B. Tv. G.
109. AMMOMANES GRAYI (Wahlberg), *Gray's Lark*.
Distr.—G.
110. AMMOMANES ERYTHROCHLAMYS (Strickl.), *Red-backed Lark*.
Distr.—Tv. B. G.
111. AMMOMANES FERRUGINEA (Smith), *Ferruginous Lark*.
Distr.—CC.
112. CALENDULA CRASSIROSTRIS (Vieill.), *Thick-billed Lark*.
Distr.—CC. O. G.
- *112A. BOTHA DIFFICILIS (Shelley), *Botha's Lark*.
Distr.—O.
- [*113. GALERITA MODESTA (Heugl.), *Heuglin's Crested Lark*.]

114. *MIRAFRA NIGRICANS* (Sundev.), *Dusky Lark*.
Distr.—Tv. Rh. G.
115. *MIRAFRA SABOTA* (Smith), *Sabota Lark*.
Distr.—O. Tv. B. Rh.
116. *MIRAFRA NÆVIA* (Strickl.), *Dark-lined Lark*.
Distr.—NCC. Tv. B. G.
117. *MIRAFRA AFRICANOIDES* (Smith), *Fawn-coloured Lark*.
Distr.—NCC. B. G.
118. *MIRAFRA DAMARENSIS* (Sharpe), *Damara Lark*.
Distr.—Ovampoland.
119. *MIRAFRA AFRICANA* (Smith), *Rufous-naped Lark*.
Distr.—ECC. N. Z. O. Tv. B. Rh. P.
120. *MIRAFRA FRINGILLARIS* (Sundev.), *Finch-like Lark*.
Distr.—Tv. O. B. G.
121. *MIRAFRA CHENIANA* (Smith), *Latakoo Lark*.
Distr.—CC. N. Tv.
122. *MIRAFRA FISCHERI* (Reichenow), *Fischer's Lark*.
Distr.—Tv. Rh.
123. *MIRAFRA APIATA* (Vieill.), *Bar-tailed Lark*.
Distr.—CC. B.
124. *MIRAFRA RUFPILEA* (Vieill.), *Rufous-headed Lark*.
Distr.—NCC. O. Tv.
125. *SPIZOCORYS CONIROSTRIS* (Sundev.), *Pink-billed Lark*.
Distr.—Tv.
- *125A. *SPIZOCORYS STARKI* (Shelley), *Stark's Pink-billed Lark*.
Distr.—Damaraland.
- *125B. *SPIZOCORYS SCLATERI* (Shelley), *Sclater's Pink-billed Lark*.
Distr.—Namaqualand.
126. *TEPHROCORYS CINEREA* (Gmel.), *Red-capped Lark*.
Distr.—CC. N. O. Tv. B. G.
- [*127. *TEPHROCORYS SPLENIATA* (Strickl.).]
- [*128. *TEPHROCORYS ANDERSSONI* (Tristr.).]

129. *OTOCORYS BERLEPSCHI* (Hartert), *South African Horned Lark*.
Distr.—ECC.
130. *HETEROCORYS BREVIUNGUIS* (Sund.), *Short-clawed Lark*.
Distr.—NCC. Tv.
- *131. *CERTHILAUDA SEMITORQUATA*, Smith, *Grey-collared Lark*.
Distr.—CC. O. Tv. B. G.
- *132. *MIRAFRA NIVOSA* (Swains.), *Karoo Lark*.
Distr.—CC. Tv.
133. *CERTHILAUDA CAPENSIS* (Bodd.), *Cape Long-billed Lark*.
Distr.—CC. N.
- *134. *CERTHILAUDA ALBOFASCIATA* (Lafr.), *Rufous Long-billed Lark*.
Distr.—CC. N. O. Tv. B. G.

FAMILY VII.—MOTACILLIDÆ.

135. *MACRONYX CAPENSIS* (Linn.), *Orange-throated Long-claw*.
Distr.—CC. UN. Z. O. Tv. Rh.
136. *MACRONYX CROCEUS* (Vieill.), *Yellow-throated Long-claw*.
Distr.—ECC. LN. Z. Tv. P.
137. *MACRONYX AMELIÆ* (De Tarragon), *Pink-throated Long-claw*.
Distr.—LN. Z. P. Rh.
138. *ANTHUS CHLORIS* (Licht), *Small Yellow-tufted Pipit*.
Distr.—ECC. O. N. Z. Tv.
139. *ANTHUS LINEIVENTRIS* (Sundev.), *Stripe-bellied Pipit*.
Distr.—N. Tv. B. Rh.
140. *ANTHUS CRENATUS* (Finsch & Hartlaub), *Larger Yellow-tufted Pipit*.
Distr.—CC.
141. *ANTHUS TRIVIALIS* (Linn.), *Tree Pipit*.
Distr.—Tv.
- *142. *ANTHUS BRACHYURUS* (Sundev.), *Short-tailed Pipit*.
Distr.—N. Z.
- *142A. *ANTHUS CAFFER* (Sundev.), *Transvaal Short-tailed Pipit*.
Distr.—Tv.

143. *ANTHUS NICHOLSONI* (Sharpe), *Nicholson's Pipit*.
Distr.—CC. N. Tv. G.
- *143A. *ANTHUS VAALENSIS* (Shelley), *Vaal River Pipit*.
Distr.—UN. NCC.
- *144. *ANTHUS PYRRHONOTUS* (Vieill.), *Cinnamon-backed Pipit*.
Distr.—Throughout.
145. *ANTHUS RUFULUS* (Vieill.), *Lesser Tawny Pipit*.
Distr.—Throughout.
146. *ANTHUS BOCAGII* (Nicholson), *Bocage's Pipit*.
Distr.—G.
- *147. *MOTACILLA VIDUA* (Sundev.), *African Pied Wagtail*.
Distr.—ECC. N.
- *147A. *MOTACILLA VAILLANTI* (Cab.), *Black-flanked Wagtail*.
Distr.—NCC. O. Tv. Rh.
148. *MOTACILLA LONGICAUDA* (Rüpp.), *Grey-backed Wagtail*.
Distr.—ECC. N. Z. ETv.
149. *MOTACILLA CAPENSIS* (Linn.), *Cape Wagtail*.
Distr.—Throughout.
150. *MOTACILLA CAMPESTRIS* (Pallas), *Ray's Yellow Wagtail*.
Distr.—N. Tv. Rh.
151. *MOTACILLA FLAVA* (Linn.), *Blue-headed Wagtail*.
Distr.—N. Tv. G.
152. *MOTACILLA FLAVA BOREALIS* (Sundev.), *Grey-headed Wagtail*.
Distr.—Tv.
153. *MOTACILLA MELANOCEPHALA* (Licht.), *Black-headed Wagtail*.
Distr.—CC. Tv.

FAMILY VIII.—CERTHIIDÆ.

154. *SALPORNIS SPILONOTUS SALVADORII* (Bocage), *African Spotted Creeper*.
Distr.—Rh.

FAMILY IX.—PROMEROPIDÆ.

155. *PROMEROPS CAFER* (Linn.), *Cape Long-tailed Sugar-bird*.
Distr.—CC.

156. *PROMEROPS GURNEYI* (Verreaux), *Natal Long-tailed Sugar-bird*.
Distr.—ECC. N. Z. O. Tv. P.

FAMILY X.—NECTARINIIDÆ.

157. *NECTARINIA FAMOSA* (Linn.), *Malachite Sunbird*.
Distr.—Throughout.
158. *CINNYRIS MARIQUENSIS* (Smith), *Southern Bifasciated Sunbird*.
Distr.—Z. Tv. Rh. B. G.
- *158A. *CINNYRIS MICRORHYNCHUS* (Shelley), *Short-billed Sunbird*.
Distr.—P.
- *158B. *CINNYRIS SHELLEYI* (Alexander), *Shelley's Sunbird*.
Distr.—Zambesi.
- *158C. *CINNYRIS CUPREUS* (Shaw), *Coppery Sunbird*.
Distr.—Zambesi.
159. *CINNYRIS LEUCOGASTER* (Vieill.), *South African White-breasted Sunbird*.
Dist.—N. Z. Tv. P. Rh. B. G.
- *159A. *CINNYRIS VENUSTUS* (Shaw), *Yellow-breasted Sunbird*.
Distr.—Zambesi.
160. *CINNYRIS AFER* (Linn.), *Greater Double-collared Sunbird*.
Distr.—CC. N. Z. O. Tv.
161. *CINNYRIS LUDOVICENSIS* (Bocage), *Northern Double-collared Sunbird*.
Distr.—G.
162. *CINNYRIS CHALYBEUS* (Linn.), *Lesser Double-collared Sunbird*.
Distr.—CC. N. Z. O. Tv. Rh.
163. *CINNYRIS GUTTURALIS* (Linn.), *Scarlet-chested Sunbird*.
Distr.—Throughout, except WCC.
164. *CINNYRIS AMETHYSTINUS* (Shaw), *Black Sunbird*.
Distr.—CC. N. Z. Tv.
165. *CINNYRIS AMETHYSTINUS BRADSHAWI* (Sharpe), *Bradshaw's Sunbird*.
Distr.—Zambesi.

166. CINNYRIS KIRKI (Shelley), *Kirk's Sunbird*.
Distr.—Rh.
167. CINNYRIS FUSCUS (Vieill.), *White-vented Sunbird*.
Distr.—CC. B. G.
168. CINNYRIS VERREAUXI (Smith), *Mouse-coloured Sunbird*.
Distr.—ECC. N. Z.
169. CINNYRIS OLIVACEUS (Smith), *Olive-coloured Sunbird*.
Distr.—ECC. N. Z. P.
170. ANTHROBAPHES VIOLACEA (Linn.), *Orange-breasted Sunbird*.
Distr.—WCC.
171. ANTHROTHREPTES COLLARIS (Vieill.), *Collared Sunbird*.
Distr.—ECC. N. Z.
172. ANTHROTHREPTES COLLARIS HYPODILUS (Jardine), *Zambesi Collared Sunbird*.
Distr.—Zambesi.

FAMILY XI.—ZOSTEROPIDÆ.

- *173. ZOSTEROPS ANDERSSONI (Shelley), *Andersson's White-eye*.
Distr.—Ovampoland, Rh.
174. ZOSTEROPS VIRENS (Bp.), *Green White-eye*.
Distr.—ECC. N. Z. Tv. P. Rh.
- *175. ZOSTEROPS PALLIDA (Swains.), *Pale White-eye*.
Distr.—NCC. Tv.
176. ZOSTEROPS CAPENSIS (Sundev.), *Cape White-eye*.
Distr.—CC. N. Z. O. Tv. G.

FAMILY XII.—PARIDÆ.

- *177. PARUS AFER (Gmel.), *Black-breasted Tit*.
Distr.—CC.
- *177A. PARUS CINERASCENS (Vieill.), *Grey Tit*.
Distr.—NCC. O. Tv.
- *177B. PARUS CINERASCENS PARVIROSTRIS (Shelley), *Northern Grey Tit*.
Distr.—Rh.

178. *PARUS PALLIDIVENTRIS* (Reichw.), *Pale-bellied Tit*.
Distr.—Rh. P.

PARUS RUFIVENTRIS (Boc.), *Red-bellied Tit*.
Distr.—Ovampoland.

179. *PARUS NIGER* (Bonn. & Vieill.), *Black Tit*.
Distr.—ECC. N. Tv. P. Rh. B. G.

180. *PARUS NIGER XANTHOSTOMUS* (Shelley), *Zambesi Black Tit*.
Distr.—CC. Zambesi.

- *181. *ÆGITHALUS MINUTUS* (Shaw), *Cape Penduline Tit*.
Distr.—CC.

- *181A. *ÆGITHALUS SMITHI* (Jard. & Selby), *Transvaal Penduline Tit*.
Distr.—Tv. Rh. B.

182. *ÆGITHALUS CAROLI* (Sharpe), *Andersson's Penduline Tit*.
Distr.—P. Rh. B. G.

FAMILY XIII.—LANIIDÆ.

183. *UROLESTES MELANOLEUCUS* (Jard. & Selby), *Long-tailed Shrike*.
Distr.—NCC. O. UN. Z. Tv. Rh.

184. *LANIUS COLLARIS* (Linn.), *Fiscal Shrike*.
Distr.—Throughout.

185. *LANIUS SUBCORONATUS* (Smith), *Coronetted Shrike*.
Distr.—NCC. Tv. B. G.

186. *LANIUS MINOR* (Gmel.), *Lesser Grey Shrike*.
Distr.—O. Tv. Rh. G.

- *186A. *LANIUS LUEBBERTI* (Reichw.), *Lubbert's Shrike*.
Distr.—G.

187. *LANIUS COLLURIO* (Linn.), *Red-backed Shrike*.
Distr.—CC. N. Z. O. Tv. Rh. G.

188. *EUROCEPHALUS ANGITIMENS* (Smith), *White-crowned Shrike*.
Distr.—Tv. Rh. B. G.

189. *NILAUS BRUBRU* (Lath.), *Brubru Shrike*.
Distr.—Throughout except SCC.

190. NILAUS NIGRITEMPORALIS (Reichw.), *Black-browed Brubru Shrike*.
Distr.—Zambesi.
191. TELEPHONUS SENEGALUS (Linn.), *Black-headed Bush-shrike*.
Distr.—Throughout except WCC.
192. TELEPHONUS TCHAGRA (Vieill.), *Tchagra*.
Distr.—CC. N. Tv.
193. TELEPHONUS AUSTRALIS (Smith), *Three-streaked Bush-shrike*.
Distr.—Tv. B. G. Rh.
194. TELEPHONUS MINOR (Reichw.), *Eastern Three-streaked Bush-shrike*.
Distr.—L. Zambesi.
195. DRYOSOPUS CUBLA (Shaw), *Lesser Puff-back Shrike*.
Distr.—ECC. N. Z. Tv. Rh.
- *195A. DRYOSOPUS CUBLA HAMATUS (Hartl.), *Tropical Puff-back Shrike*.
Distr.—G.
- *196. DRYOSOPUS RUFIVENTRIS (Shaw), *Greater Puff-back Shrike*.
Distr.—CC. N.
- *196A. DRYOSOPUS RUFIVENTRIS HYBRIDUS (Neum.), *Northern Puff-back Shrike*.
Distr.—Tv. Rh.
197. DRYOSOPUS GUTTATUS (Hartl.), *Hartlaub's Shrike*.
Distr.—Rh. B. G.
198. DRYOSOPUS MOSSAMBICUS (Finsch & Reichw.), *Mozambique Shrike*.
Distr.—P.
199. LANIARIUS ATROCOCCINEUS (Burchell), *Black and Crimson Shrike*.
Distr.—NCC. WTV. B. Rh. G.
200. LANIARIUS GUTTURALIS (P. L. S. Müller), *Backbakiri Shrike*.
Distr.—CC. N. O. Tv. G.
201. LANIARIUS QUADRICOLOR (Cass.), *Four-coloured Bush Shrike*.
Distr.—N. Z. Tv. Rh.

202. *LANIARIUS RUBIGINOSUS* (Sundev.), *Ruddy-breasted Bush Shrike*.
Distr.—ECC. N. Z. ETv.
203. *LANIARIUS OLIVACEUS* (Shaw), *Olive Bush Shrike*.
Distr.—ECC. N. Z.
- *204. *LANIARIUS MARAISI* (Scl. f.), *Marais' Bush Shrike*.
Distr.—Knysna.
- *205. *LANIARIUS SULFUREIPECTUS* (Less.), *Orange-breasted Bush Shrike*.
Distr.—ECC. N. Z. ETv. Rh. B.
206. *LANIARIUS STARKI* (Scl. f.), *Southern Grey-headed Bush Shrike*.
Distr.—CC. N. Z. P. Rh.
207. *Nicator GULARIS* (Finsch & Hartl.), *Zambesi Green Shrike*.
Distr.—Z. P.
208. *LANIOTURDUS TORQUATUS* (Waterhouse), *White-tailed Shrike*.
Distr.—G.
209. *SIGMODUS RETZII* (Wahlb.), *Retz's Helmet Shrike*.
Distr.—G. Rh.
210. *SIGMODUS TRICOLOR* (Gray), *Zambesi Helmet Shrike*.
Distr.—ETv. P. Rh.
211. *PRIONOPS TALACOMA* (Smith), *Smith's Helmet Shrike*.
Distr.—Z. ETv. P. Rh. B. G.

FAMILY XIV.—CRATEROPODIDÆ.

212. *CRATEROPUS JARDINII* (Smith), *Jardine's Babbler*.
Distr.—N. Z. Tv. Rh. B. P.
213. *CRATEROPUS KIRKI* (Sharpe), *Kirk's Babbler*.
Distr.—Rh. P.
214. *CRATEROPS MELANOPS* (Hartl.), *Black-faced Babbler*.
Distr.—G.
215. *CRATEROPUS HARTLAUBI* (Bocage), *Hartlaub's Babbler*.
Distr.—Rh. G.
216. *CRATEROPUS BICOLOR* (Jardine), *Pied Babbler*.
Distr.—NCC. Z. Tv. B. Rh. G.

217. *PYCNONOTUS CAPENSIS* (Linn.), *Cape Bulbul*.
Distr.—CC.
218. *PYCNONOTUS TRICOLOR* (Hartl.), *Damaraland Bulbul*.
Distr.—G.
219. *PYCNONOTUS LAYARDI* (Gurney), *Black-capped Bulbul*.
Distr.—ECC. N. Tv. Rh. G.
220. *PYCNONOTUS NIGRICANS* (Vieill.), *Black-fronted Bulbul*.
Distr.—NCC. N. O. Tv. B. G.
221. *ANDROPADUS IMPORTUNUS* (Vieill.), *Sombre Bulbul*.
Distr.—CC. N. Z. ETv.
222. *ANDROPADUS DEBILIS* (Scl. f.), *Slender Bulbul*.
Distr.—P.
223. *CHLOROCICHLA FLAVIVENTRIS* (Smith), *Yellow-bellied Bulbul*.
Distr.—N. Z.
224. *CHLOROCICHLA OCCIDENTALIS* (Sharpe), *Damara Bulbul*.
Distr.—G. Rh.
- *225. *CHLOROCICHLA INSULARIS* (Hartl.),
Distr.—P.
226. *PHYLLOSTROPHUS CAPENSIS* (Swains.), *Cape Bristle-necked Bulbul*.
Distr.—CC. N. Z. Tv. B.
227. *PHYLLOSTROPHUS STREPITANS* (Reichw.), *Reichenow's Bristle-necked Bulbul*.
Distr.—P.
228. *PHYLLOSTROPHUS FLAVISTRIATUS* (Sharpe), *Yellow-streaked Bulbul*.
Distr.—ECC. Z. ETv. P.
- *228A. *CRINIGER MILANJENSIS* (Shell.), *Milanjì Bulbul*.
Distr.—Rh. P.
229. *PARISOMA SUBCÆRULEUM* (Vieill.), *Tit Babbler*.
Distr.—CC. O. UN. Tv. Rh. G.
230. *PARISOMA LAYARDI* (Hartl.), *Layard's Tit Babbler*.
Distr.—CC. G.
231. *PARISOMA PLUMBEUM* (Hartl.), *Hartlaub's Tit Babbler*.
Distr.—N. Rh.

FAMILY XV.—SYLVIIDÆ.

232. SYLVIA CINEREA (Bechst.), *European Whitethroat*.
Distr.—G.
233. SYLVIA SIMPLEX (Lath.), *Garden Warbler*.
Distr.—N. Tv. B. Rh. G.
234. PHYLLOSCOPUS TROCHILUS (Linn.), *Willow Wren*.
Distr.—Throughout.
235. HYPOLAIS INTERINA (Vieill.), *Icterine Warbler*.
Distr.—B. G. Rh.
236. ACROCEPHALUS ARUNDINACEUS (Linn.), *Great Reed Warbler*.
Distr.—ECC. N. Tv. Rh. G.
237. ACROCEPHALUS PALUSTRIS (Bechst.), *Marsh Warbler*.
Distr.—N. Zambesi.
238. ACROCEPHALUS BÆTICATUS (Vieill.), *African Reed Warbler*.
Distr.—Throughout.
239. ACROCEPHALUS SCHÆNOBÆNUS (Linn.), *Sedge Warbler*.
Distr.—Tv. G. Zambesi.
240. LOCUSTELLA FLUVIATILIS (Wolf), *River Grasshopper Warbler*.
Distr.—Zambesi.
- *241. CRYPTILLAS VICTORINI (Sund.), *Victorin's Warbler*.
Distr.—CC.
- *242. EURYPILA SUBCINNAMOMEA (Smith), *Cinnamon-breasted Warbler*.
Distr.—CC.
243. BRADYPTERUS BRACHYPTERUS (Vieill.), *Stripe-throated Reed Warbler*.
Distr.—Throughout except G.
244. BRADYPTERUS BARRATTI (Sharpe), *Barratt's Reed Warbler*.
Distr.—N. ETv.
245. BRADYPTERUS SYLVATICUS (Sundev.), *Knysna Reed Warbler*.
Distr.—Knysna.
246. BRADYPTERUS BABÆCULA (Vieill.), *Babbling Reed Warbler*.
Distr.—Throughout.

- *246A. *BRADYPTERUS CUNENENSIS* (Hartert), *Cunene Reed Warbler*.
Distr.—Ovampoland.
247. *SCHOENICOLA APICALIS* (Cab.), *Fan-tailed Reed Warbler*.
Distr.—N. Z. Rh.
248. *EREMOMELA FLAVIVENTRIS* (Burch.), *Yellow-bellied Bush Warbler*.
Distr.—CC. N. Tv. Rh.
- *248A. *EREMOMELA FLAVIVENTRIS DAMARENSIS* (Sharpe), *Damaraland Bush Warbler*.
Distr.—G.
249. *EREMOMELA POLIOXANTHA* (Sharpe), *Buckley's Bush Warbler*.
Distr.—ETv.
250. *EREMOMELA HELENORÆ* (Alexander), *Zambesi Bush Warbler*.
Distr.—Zambesi.
251. *EREMOMELA USTICOLLIS* (Sundev.), *Brown-throated Bush Warbler*.
Distr.—Z. Tv. Rh. G.
252. *EREMOMELA SCOTOPS* (Sundev.), *Dusky-faced Bush Warbler*.
Distr.—Tv. Rh.
253. *CAMAROPTERA OLIVACEA* (Vieill.), *Green-backed Bush Warbler*.
Distr.—ECC. N. Tv. Rh. P.
254. *CAMAROPTERA SUNDEVALLI* (Sharpe), *Grey-backed Bush Warbler*.
Distr.—ECC. N. Tv. B. G.
255. *CAMAROPTERA BREVICAUDATA* (Cretzschm.), *Rüppell's Bush Warbler*.
Distr.—Zambesi.
256. *SYLVIELLA RUFESCENS* (Vieill.), *Crombec*.
Distr.—CC. N. Z. Tv. Rh. G.
257. *SYLVIELLA PALLIDA* (Alexander), *Zambesi Crombec*.
Distr.—Zambesi.
258. *CRYPTOLOPHA RUFICAPILLA* (Sundev.), *Yellow-throated Fly-catcher Warbler*.
Distr.—ECC. N. Z. ETv. P.

259. APALIS THORACICA (Shaw & Nodder), *Bar-throated Warbler*.
Distr.—CC. N. ETv. B.
260. APALIS SCITA (Vieill.), *Fairy Warbler*.
Distr.—CC. UN. O. Tv.
261. CHLORODYTA FLAVIDA (Strickl.), *Black-breasted Bush Warbler*.
Distr.—G.
262. CHLORODYTA NEGLECTA (Alexander), *Eastern Black-breasted Bush Warbler*.
Distr.—ECC. N. Z. ETv. P. Rh.
263. CHLORODYTA DAMARENSIS (Wahlb.), *Damara Bush Warbler*.
Distr.—G.
264. CHLORODYTA ICTEROPYGIALIS (Lafr.), *Yellow-rumped Bush Warbler*.
Distr.—CC. N.
265. CALAMONASTES FASCIOLATUS (Smith), *Barred Wren Warbler*.
Distr.—CC. B. Tv. Rh. G.
266. PRINIA SUBSTRIATA (Smith), *White-breasted Wren Warbler*.
Distr.—CC.
267. PRINIA HYPOXANTHA (Aytes), *Saffron-breasted Wren Warbler*.
Distr.—ECC. N. ETv.
268. PRINIA MACULOSA (Bodd.), *Cape Wren Warbler*.
Distr.—CC. G.
269. PRINIA MYSTACEA (Rüpp.), *Tawny-flanked Wren Warbler*.
Distr.—NTv. Rh. P. G.
270. PRINIA FLAVICANS (Bonn. & Vieill.), *Black-chested Wren Warbler*.
Distr.—CC. O. Tv. Rh. G.
- *270A. SPILOPTILA MOLOPENSIS (Sharpe), *Molopo Wren Warbler*.
Distr.—B.
271. SPILOPTILA OCULARIA (Smith), *Rufous-eared Wren Warbler*.
Distr.—CC. N. Tv.
272. CISTICOLA FULVICAPILLA (Vieill.), *Tawny-headed Grass Warbler*.
Distr.—CC. N. Tv. G.

273. *CISTICOLA ABERRANS* (Smith), *Smith's Grass Warbler*.
Distr.—ECC. N. Tv. Rh. G.
274. *CISTICOLA CINERASCENS* (Heuglin), *Grey Grass Warbler*.
Distr.—Z. Rh.
275. *CISTICOLA ERYTHROPS* (Hartl.), *Rufous-fronted Grass Warbler*.
Distr.—Zambesi.
276. *CISTICOLA RUFA* (Fraser), *Fraser's Grass Warbler*.
Distr.—P.
277. *CISTICOLA TEXTRIX* (Vieill.), *Pinc-pinc Grass Warbler*.
Distr.—WCC.
278. *CISTICOLA TINNIENS* (Licht.), *Levaillant's Grass Warbler*.
Distr.—CC. N. Tv. G. Rh.
279. *CISTICOLA TERESTRIS* (Smith), *Wren Grass Warbler*.
Distr.—Throughout except G.
280. *CISTICOLA CURSITANS* (Frankl.), *Mediterranean Grass Warbler*.
Distr.—G.
281. *CISTICOLA SUBRUFICAPILLA* (Smith), *Grey-backed Grass Warbler*.
Distr.—CC. O. Tv. B.
- *281A. *CISTICOLA CHINIANA* (Smith), *Eastern Grey-backed Grass Warbler*.
Distr.—N. Z. P. Rh.
- *281B. *CISTICOLA RUFILATA* (Hartl.), *Hartlaub's Grey-backed Grass Warbler*.
Distr.—G.
282. *CISTICOLA LUGUBRIS* (Rüpp.), *Buff-fronted Grass Warbler*.
Distr.—N. Z. P.
283. *CISTICOLA NATALENSIS* (Smith), *Natal Grass Warbler*.
Distr.—ECC. N. Z. P. Tv. Rh.
284. *CISTICOLA OBSCURA* (Sundev.), *Dusky Grass Warbler*.
Distr.—N.
285. *CISTICOLA MUELLERI* (Alexander), *Müller's Grass Warbler*.
Distr.—Zambesi.

286. PINARORNIS PLUMOSUS (Sharpe), *Sooty Chat Warbler*.
Distr.—Rh.
287. CHÆTOPS FRENATUS (Temm.), *Rufous Rock-jumper*.
Distr.—WCC.
288. CHÆTOPS AURIANTIACUS (Layard), *Orange-breasted Rock-jumper*.
Distr.—ECC. N.
289. CHÆTOPS PYCNOPYGIUS (P. L. Sclater), *Damara Rock-jumper*.
Distr.—G.
290. SPHENGEACUS AFRICANUS (Gmel.), *Cape Grass-bird*.
Distr.—WCC.
291. SPHENGEACUS INTERMEDIUS (Shelley), *Eastern Province Grass-bird*.
Distr.—ECC.
292. SPHENGEACUS NATALENSIS (Shelley), *Natal Grass-bird*.
Distr.—N. Z. Tv.

FAMILY XVI.—TURDIDÆ.

293. TURDUS GUTTATUS (Vigors), *Natal Thrush*.
Distr. ECC. N.
294. TURDUS LITSIPSIRUPA (Smith), *Ground-scraper Thrush*.
Distr.—NCC. N. O. Tv. B. Rh. G.
295. TURDUS GURNEYI (Hartl.), *Gurney's Thrush*.
Distr.—N. Tv.
296. TURDUS OLIVACEUS (Linn.), *Cape Thrush*.
Distr.—CC. N. Z.
297. TURDUS CABANISI (Cab.), *Cabanis' Thrush*.
Distr.—NCC. O. Tv. B.
298. TURDUS LIBONIANUS (Smith), *Kurrichaine Thrush*.
Distr.—Z. Tv. B. Rh.
- *298A. TURDUS LIBONIANUS TROPICALIS (Pters.), *Peters' Thrush*.
Distr.—P.
- *298B. TURDUS LIBONIANUS VERREAUXI (Boc.), *Verreaux's Thrush*.
Distr.—G.

299. ERITHACUS PHILOMELA (Bechst.), *The Eastern Nightingale*.
Distr.—Zambesi.
300. MONTICOLA RUPESTRIS (Vieill.), *Cape Rock Thrush*.
Distr.—CC. N. Z. O. Tv.
301. MONTICOLA EXPLORATOR (Vieill.), *Sentinel Rock Thrush*.
Distr.—CC. N. Z. O. Tv.
302. MONTICOLA BREVIPES (Waterhouse), *Short-toed Rock Thrush*
Distr.—NCC. Tv. G.
303. MONTICOLA ANGOLENSIS (Sousa), *Angola Rock Thrush*.
Distr.—Rh.
304. MYRMECOCICHLA FORMICIVORA (Vieill.), *Ant-eating Chat*.
Distr.—Throughout.
305. MYRMECOCICHLA BIFASCIATA (Temm.), *Buff-streaked Chat*
Distr.—ECC. UN. O. Tv.
306. PRATINCOLA TORQUATA (Linn.), *South African Stone Chat*.
Distr.—Throughout except G.
- *307. SAXICOLA MONTICOLA (Vieill.), *Mountain Chat*.
Distr.—CC. UN. O. Tv. B. G.
308. SAXICOLA PILEATA (Gmel.), *Capped Wheatear*.
Distr.—Throughout except Zambesi.
309. SAXICOLA PILEATA LIVINGSTONII (Tristram), *Livingstone's Wheatear*.
Distr.—Zambesi.
310. SAXICOLA OENANTHE (Linn.), *European Wheatear*.
Distr.—Zambesi.
311. SAXICOLA ALBICANS (Wahl.), *Damara Chat*.
Distr.—G.
- *312. SAXICOLA LAYARDI (Sharpe), *Layard's Chat*.
Distr.—Orange River.
- *313. SAXICOLA FAMILIARIS (Stephens), *Familiar Chat*.
Distr.—CC. N. Z.
- *313A. SAXICOLA FAMILIARIS GALTONI (Strickl.), *Galton's Chat*.
Distr.—Tv. Rh.

- *313B. SAXICOLA FAMILIARIS HELLMAYRI (Reichw.), *Hellmayr's Chat*.
Distr.—G.
314. SAXICOLA FALKENSTEINI (Cab.), *Falkenstein's Chat*.
Distr.—Zambesi.
315. EMARGINATA SINUATA (Sundev.), *Sickle-winged Chat*.
Distr.—CC. O. Tv. B.
- *316. EMARGINATA CINEREA (Vieill.), *Grey Chat*.
Distr.—CC.
- *316A. EMARGINATA SCHLEGELII (Wahl.), *Schlegel's Chat*.
Distr.—G.
317. EMARGINATA POLLUX (Hartl.), *Hartlaub's Chat*.
Distr.—CC.
318. THAMNOLÆA CINNAMOMEIVENTRIS (Lafr.), *White-shouldered Bush Chat*.
Distr.—ECC. UN. O. Tv. B. Rh.
319. THAMNOLÆA ARNOTTI (Tristr.) *Arnot's Bush Chat*.
Distr.—ECC. Tv. Rh. G.
320. COSSYPHA BICOLOR (Spartm.), *Noisy Robin Chat*.
Distr.—CC. N. Z. Tv. P. G.
321. COSSYPHA NATALENSIS (Smith), *Natal Robin Chat*.
Distr.—N. Z. ETv. P.
322. COSSYPHA HEUGLINI (Hartl.), *Heuglin's Robin Chat*.
Distr.—ETv. Rh.
323. COSSYPHA CAFFRA (Linn.) *Cape Robin Chat*.
Distr.—CC. N. Z. O. Tv. B. Rh.
324. COSSYPHA HUMERALIS (Smith), *White-shouldered Robin Chat*.
Distr.—N. Z. Tv. P. Rh. B.
325. COSSYPHA SIGNATA (Sundev.), *Brown Robin Chat*.
Distr.—ECC. N. Z.
326. CICHLADUSA ARCUATA (Peters), *Morning Warbler*.
Distr.—Zambesi.
327. TARSIGER STELLATUS (Vieill.), *White-starred Bush Robin*.
Distr.—CC. N. ETv.

328. TARSIGER SILENS (Shaw), *Silent Bush Robin*.
Distr.—CC. N. Z. O. Tv. B.
329. ERYTHROPYGIA PÆNA (Smith), *Smith's Ground Robin*.
Distr.—NCC. G. B. Tv. Rh.
330. ERYTHROPYGIA ZAMBESIANA (Sharpe), *Zambesi Ground Robin*.
Distr.—Zambesi.
331. ERYTHROPYGIA LEUCOPHRYS (Vieill.), *White-browed Ground Robin*.
Distr.—ECC. N. O. Tv. P. B. Rh.
332. ERYTHROPYGIA MUNDA (Cab.), *Damara Ground Robin*.
Distr.—G.
333. ERYTHROPYGIA QUADRIVIRGATA (Reichb.), *Rufous-breasted Ground Robin*.
Distr.—ETv. P. Rh.
334. ERYTHROPYGIA CORYPHEUS (Less.), *Cape Ground Robin*.
Distr.—WCC. B. G.

FAMILY XVII.—MUSCICAPIDÆ.

335. LIOPTILUS NIGRICAPILLUS (Vieill.), *Bush Blackcap*.
Distr.—ECC. N. ETv.
336. BRADYORNIS ATER (Sundev.), *Black Flycatcher*.
Distr.—N. ETr. G. Rh.
337. BRADYORNIS INFUSCATUS (Smith), *Brown Flycatcher*.
Distr.—WCC. B. G.
338. BRADYORNIS MARIQUENSIS (Smith), *Mariqua Flycatcher*.
Distr.—NCC. Tv. B. G.
- *338A. BRADYORNIS GRISEA (Reichw.), *East African Flycatcher*.
Distr.—Z. P.
339. BRADYORNIS MURINUS (Finsch & Hartl.), *Mouse-coloured Flycatcher*.
Distr.—Z. Rh.
340. MUSICAPA GRISOLA (Linn.), *Spotted Flycatcher*.
Distr.—Throughout.

341. *MUSICAPA CÆRULESCENS* (Hartl.), *Blue-grey Flycatcher*.
Distr.—ECC. N. Z. Rh. G.
342. *ALSEONAX ADUSTA* (Boie), *Dusky Flycatcher*.
Distr.—CC. N. Z. ETv. Rh.
343. *CHLOROPETA NATALENSIS* (Smith), *Natal Yellow Flycatcher*.
Distr.—N. Z. ETv.
- [*344. *CHLOROPETA ICTERINA* (Sundev.), *Sundevall's Yellow Flycatcher*.]
345. *HYLIOTA AUSTRALIS* (Shelley), *Mashonaland Flycatcher*.
Distr.—Rh.
346. *SMITHORNIS CAPENSIS* (Smith), *Cape Broad-bill*.
Distr.—N. Z.
347. *BIAS MUSICUS* (Vieill.), *Black and White Flycatcher*.
Distr.—P. Rh.
348. *PLATYSTIRA PELTATA* (Sundev.), *Green-throated Flycatcher*.
Distr.—? N. P.
349. *PACHYPRORA CAPENSIS* (Linn.), *Cape Flycatcher*.
Distr.—CC. N. Z. ETv.
- *349A. *PACHYPRORA FRATRUM* (Shelley), *Woodward's Flycatcher*.
Distr.—Z.
350. *PACHYPRORA MOLITOR* (Hahn and Kuster), *White-flanked Flycatcher*.
Distr.—ECC. N. Z. ETv. P. Rh. G.
351. *PACHYPRORA PRIRIT* (Levaill.), *Pririt Flycatcher*.
Distr.—WCC. G.
352. *ERYTHROCERCUS LIVINGSTONII* (Finsch & Hartl.), *Livingstone's Flycatcher*.
Distr.—Rh. P.
353. *TROCHOCERCUS CYANOMELAS* (Vieill.), *Blue-mantled Flycatcher*.
Distr.—CC. N. ETv.
- *353A. *TROCHOCERCUS ALBONOTATUS* (Sharpe), *White-spotted Flycatcher*.
Distr.—Rh.

354. TERPSIPHONE PERSPICILLATA (Swains.), *Paradise Flycatcher*.
Distr.—CC. N. Tv.

- *354A. TERPSIPHONE PLUMBEICEPS (Reichw.), *Grey-chinned Paradise Flycatcher*.
Distr.—G. Rh.

FAMILY XVIII.—DICRURIDÆ.

355. DICRURUS AFER (Licht.), *Fork-tailed Drongo*.
Distr.—Throughout in wooded districts.
356. DICRURUS LUDWIGI (Smith), *Square-tailed Drongo*.
Distr.—N. Z. P. ETv. Rh. B.

FAMILY XIX.—CAMPOPHAGIDÆ.

357. CAMPOPHAGA NIGRA (Vieill.), *Black Cuckoo Shrike*.
Distr.—Throughout.
358. CAMPOPHAGA HARTLAUBI (Salvad.), *Hartlaub's Cuckoo Shrike*.
Distr.—Throughout.
359. GRAUCALUS PECTORALIS (Jard. & Selby), *Black-chested Cuckoo Shrike*.
Distr.—Tv. P. Rh. G.
360. GRAUCALUS CÆSIUS (Licht.), *Grey Cuckoo Shrike*.
Distr.—CC. N. Z.

FAMILY XX.—HIRUNDINIDÆ.

361. CHELIDON URBICA (Linn.), *House Martin*.
Distr.—UN. Tv. Rh.
362. COTILE RIPARIA (Linn.), *European Sand Martin*.
Distr.—Tv.
363. COTILE PALUDICOLA (Vieill.), *South African Sand Martin*.
Distr.—Throughout except G.
364. COTILE CINCTA (Bodd.), *Banded Sand Martin*.
Distr.—Throughout.
365. PTYONOPROGNE FULIGULA (Licht.), *Rock Martin*.
Distr.—CC. N. Z. Tv.

366. PTYONOPROGNE ANDERSSONI (Sharpe & Wyatt), *Andersson's Rock Martin*.
Distr.—G.
367. HIRUNDO RUSTICA (Linn.), *European Swallow*.
Distr.—Throughout.
368. HIRUNDO ANGOLENSIS (Boc.), *Angola Swallow*.
Distr.—G.
369. HIRUNDO ALBIGULARIS (Strickl.), *White-throated Swallow*.
Distr.—Throughout.
370. HIRUNDO DIMIDIATA (Sund.), *Pearl-breasted Swallow*.
Distr.—Throughout.
371. HIRUNDO ATROCÆRULEA (Sundev.), *Blue Swallow*.
Distr.—N.
372. HIRUNDO SMITHI (Leach), *Wire-tailed Swallow*.
Distr.—Zambesi, N.
373. HIRUNDO GRISEOPYGA (Sundev.), *Grey-rumped Swallow*.
Distr.—N. Z. P. Rh.
374. HIRUNDO CUCULLATA (Bodd.), *Larger Stripe-breasted Swallow*.
Distr.—Throughout.
375. HIRUNDO PUELLA (Temm.), *Smaller Stripe-breasted Swallow*.
Distr.—ECC. N. Z. Tv. Rh.
376. HIRUNDO SEMIRUFA (Sundev.), *Rufous-breasted Swallow*.
Distr.—N. O. Tv. Rh.
377. HIRUNDO MONTEIRI (Hartl.), *Monteiro's Swallow*.
Distr.—P. Rh. G.
378. PETROCHELIDON SPILODERA (Sundev.), *South African Cliff Swallow*.
Distr.—ECC. N. Z. O. Tv.
379. PSALIDOPROCNE HOLOMELÆNA (Sundev.), *Black Rough-winged Swallow*.
Distr.—CC. N. Tv.
380. PSALIDOPROCNE ORIENTALIS (Reichw.), *Eastern Rough-winged Swallow*.
Distr.—P.

FAMILY XXI.—PITTIDÆ.

- *381. *PITTA LONGIPENNIS* (Reichw.), *Central African Pitta*.
Distr.—Rh.

ORDER II.—PICARIÆ.

FAMILY I.—UPUPIDÆ.

382. *UPUPA AFRICANA* (Bechst.), *South African Hoopoe*.
Distr.—Throughout.

FAMILY II.—IRRISORIDÆ.

383. *IRRISOR VIRIDIS* (A. A. H. Licht.), *Kakelaar*.
Distr.—CC. N. Tv.
- 383A. *IRRISOR ERYTHORHYNCHUS* (Lath.), *East African Kakelaar*.
Distr.—N. Z. P.
- 383B. *IRRISOR DAMARENSIS* (Grant), *Damaraland Kakelaar*.
Distr.—G.
384. *RHINOPOMASTUS CYANOMELAS* (Vieill.), *Scimitar-bill*.
Distr.—NCC. N. Z. Tv. B. Rh. G.

FAMILY III.—CYPSELIDÆ.

385. *CYPSELUS AFRICANUS* (Temm.), *White-bellied Swift*.
Distr.—CC. N. Tv. G.
386. *CYPSELUS APUS* (Linn.), *European Swift*.
Distr.—NCC. Rh.
387. *CYPSELUS BARBATUS* (Scl.), *Black Swift*.
Distr. CC. N.
388. *CYPSELUS CAFFER* (Licht.), *African White-rumped Swift*.
Distr.—CC. N. Tv. Rh.
389. *CYPSELUS AFFINIS* (J. E. Gray & Hardwicke), *Indian Swift*.
Distr.—CC.
390. *TACHORNIS PARVA* (Licht.), *Palm Swift*.
Distr.—Zambesi, G.
391. *CHÆTURA STICTILÆMA* (Reich.), *Reichenow's Spine-tail*.
Distr.—Zambesi.

FAMILY IV.—CAPRIMULGIDÆ.

392. CAPRIMULGUS EUROPÆUS (Linn.), *European Nightjar*.
Distr.—CC. N. Z. O. Tv.
393. CAPRIMULGUS RUFIGENA (Smith), *Rufous-checked Nightjar*.
Distr.—CC. O. Tv. B. Rh. G.
394. CAPRIMULGUS FERVIDUS (Sharpe), *Fiery-necked Nightjar*.
Distr.—N. Z. Tv. G.
395. CAPRIMULGUS PECTORALIS (Cuv.), *South African Nightjar*.
Distr.—CC. N. Z.
396. CAPRIMULGUS TRIMACULATUS (Swains.), *Freckled Nightjar*.
Distr.—G. Tv.
397. CAPRIMULGUS FOSSII (Hartl.), *Mozambique Nightjar*.
Distr.—Z. O. B. Rh. P.
398. CAPRIMULGUS NATALENSIS (Smith), *Natal Nightjar*.
Distr.—N.
399. COSMETORNIS VEXILLARIUS (Gould), *Standard-wing Nightjar*.
Distr.—N. Z. P. Rh. G.

FAMILY V.—CORACIIDÆ.

400. CORACIAS GARRULUS (Linn.), *European Roller*.
Distr.—Throughout, rare in CC.
401. CORACIAS CAUDATUS (Linn.), *Moselikatzé's Roller*.
Distr.—NCC. N. Z. Tv. B. Rh. G. P.
402. CORACIAS SPATULATUS (Trimen), *Racquet-tailed Roller*.
Distr.—Rh.
403. CORACIAS MOSAMBICUS (Dresser), *Purple Roller*.
Distr.—CC. N. O. Tv. B. Rh. G. P.
404. EURYSTOMUS AFER (Lath.), *Cinnamon Roller*.
Distr.—Tv. Rh. P.

FAMILY VI.—MEROPIDÆ.

405. MEROPS APIASTER (Linn.), *European Bee-Eater*.
Distr.—Throughout.

406. *MEROPS PERSICUS* (Pallas), *Blue-checked Bee-Eater*.
Distr.—Throughout.
407. *MEROPS BOEHMI* (Reichw.), *Böhm's Bee-Eater*.
Distr.—Zambesi.
408. *MEROPS NUBICOIDES* (Desmurs & Pucheran), *Carminethroated Bee-Eater*.
Distr.—Tv. B. Rh. G. P.
409. *DICROCERCUS HIRUNDINEUS* (Licht.), *Swallow-tailed Bee-Eater*.
Distr.—NCC. N. Tv. B. Rh. G.
410. *MELITTOPHAGUS MERIDIONALIS* (Sharpe), *Little Bee-Eater*.
Distr.—N. Z. Tv. B. Rh. G. P.
411. *MELITTOPHAGUS BULLOCKOIDES* (Smith), *White-fronted Bee-Eater*.
Distr.—N. Z. Tv. Rh. P.

FAMILY VII.—ALCEDINIDÆ.

412. *CERYLE RUDIS* (Linn.), *Pied Kingfisher*.
Distr.—Throughout.
413. *CERYLE MAXIMA* (Pall.), *Giant Kingfisher*.
Distr.—Throughout.
414. *ALCEDO SEMITORQUATA* (Swains.), *Half-collared Kingfisher*.
Distr.—CC. N. Z. Tv. Rh.
415. *CORYTHORNIS CYANOSTIGMA* (Rüpp.), *Malachite Kingfisher*.
Distr.—Throughout except G.
416. *ISPIDINA NATALENSIS* (Smith), *Natal Kingfisher*.
Distr.—ECC. N. Z. P.
417. *HALCYON SWAINSONI* (Smith), *Grey-headed Kingfisher*.
Distr.—Tv. Rh. G.
418. *HALCYON ALBIVENTRIS* (Scop.), *Brown-hooded Kingfisher*.
Distr.—CC. N. Z. Tv.
419. *HALCYON ORIENTALIS* (Peters), *Peters' Kingfisher*.
Distr.—P.
420. *HALCYON CHELICUTI* (Stanley), *Striped Kingfisher*.
Distr.—NCC. Z. Tv. Rh. G. P.

421. HALCYON CYANOLEUCUS (Vieill.), *Angola Kingfisher*.

Distr.—Z. Tv. B. Rh. G.

422. HALCYON SENEGALOIDES (Smith), *Mangroove Kingfisher*.

Distr.—ECC. N.

FAMILY VIII.—COLIIDÆ.

- *423. COLIUS STRIATUS (Gmel.), *Speckled Mouse-Bird*.

Distr.—CC.

- *423A. COLIUS STRIATUS MINOR (Cab.), *Natal Speckled Mouse-Bird*.

Distr.—N. Z. Tv. P.

- *424. COLIUS CAPENSIS (Gmel.), *White-backed Mouse-Bird*.

Distr.—CC. O. Tv.

- *424A. COLIUS CAPENSIS DAMARENSIS (Reichw.), *Damaraland Mouse-Bird*.

Distr.—G.

425. COLIUS ERYTHROMELON (Vieill.), *Red-faced Mouse-Bird*.

Distr.—CC. N. Z. Tv. B. P.

- 425A. COLIUS ERYTHROMELON LACTEIFRONS (Sharpe), *Whitefronted Mouse-Bird*.

Distr.—G.

FAMILY IX.—BUCEROTIDÆ.

426. BUCORAX CAFER (Boc.), *Brom-Vogel*.

Distr.—ECC. N. Z. Tv. Rh. P. G.

427. BYCANISTES BUCCINATOR (Temm.), *Trumpeter Hornbill*.

Distr.—ECC. N. Z. E. Tv. P.

- *427A. BYCANISTES CRISTATUS (Rüpp.), *Zambesi Trumpeter*.

Distr.—Zambesi.

428. LOPHOCEROS MELANOLEUCUS (Licht.), *Crowned Hornbill*.

Distr.—CC. N. P.

429. LOPHOCEROS MONTEIRI (Hartl.), *Monteiro's Hornbill*.

Distr.—G.

430. LOPHOCEROS EPIRHINUS (Sundev.), *South African Grey Hornbill*.

Distr.—Z. Tv. B. Rh. G. P.

431. *LOPHOCEROS ERYTHORHYNCHUS* (Temm.), *Red-billed Hornbill*.
Distr.—Tv. B. Rh. G. P.
432. *LOPHOCEROS DAMARENSIS* (Shelley), *Damaraland Hornbill*.
Distr.—G.
433. *LOPHOCEROS LEUCOMELAS* (Licht.), *Yellow-billed Hornbill*.
Distr.—N. Tv. B. Rh. G. P.

FAMILY X.—TROGONIDÆ.

434. *HAPALODERMA NARINA* (Stephens), *Narina Trogon*.
Distr.—SCC. N. Z. ETv. P. Rh.

FAMILY XI.—PICIDÆ.

435. *GEOCOLAPTES OLIVACEUS* (Gmel.), *Ground Woodpecker*.
Distr.—CC. N. O. Tv.
436. *CAMPOTHERA NOTATA* (Licht.), *Knysna Woodpecker*.
Distr.—CC. N.
437. *CAMPOTHERA ABINGDONI* (Smith), *Golden-tailed Woodpecker*.
Distr. N. Z. ETv. B.
438. *CAMPOTHERA SMITHI* (Malh.), *Smith's Woodpecker*.
Distr.—NCC. Tv. Rh. G. P.
439. *CAMPOTHERA BENNETTI* (Smith), *Bennett's Woodpecker*.
Distr.—Z. Tv. B. Rh.
- 439A. *CAMPOTHERA BENNETTI CAPRICORNIS*, *Capricorn Woodpecker*.
Distr.—G.
- *440. *DENDROPICUS CARDINALIS* (Gmel.), *Cardinal Woodpecker*.
Distr.—Throughout except Zambesi Valley.
- *440A. *DENDROPICUS CARDINALIS HARTLAUBI* (Mahl.), *Hartlaub's Cardinal Woodpecker*.
Distr.—Zambesi Valley.
441. *THRIPIAS NAMAQUUS* (Licht.), *Bearded Woodpecker*.
Distr.—ECC. Z. Tv. B. Rh. G. P.
442. *MESOPICUS GRISEICEPHALUS* (Bodd.), *Olive Woodpecker*.
Distr.—CC. N. Z. Tv.
443. *LYNX RUFICOLLIS* (Wagler), *South African Wryneck*.
Distr.—ECC. N. Z. Tv.

FAMILY XII.—INDICATORIDÆ.

444. INDICATOR SPARRMANI (Steph.), *Sparrman's Honey-Guide*.
Distr.—CC. N. Z. Tv. Rh.
445. INDICATOR MAJOR (Steph.), *Yellow-throated Honey-Guide*.
Distr.—CC. N. Tv. Rh.
446. INDICATOR VARIEGATUS (Sundev.), *Scaly-throated Honey-Guide*.
Distr.—CC. Z.
447. INDICATOR MINOR (Steph.), *Lesser Honey-Guide*.
Distr.—Throughout.
448. PRODOTISCUS REGULUS (Sundev.), *Wahlberg's Honey-Guide*.
Distr.—N.

FAMILY XIII.—CAPITONIDÆ.

449. LYBIUS TORQUATUS (Dumont), *Black-collared Barbet*.
Distr.—ECC. N. Z. Tv. B. Rh. P.
450. TRICHOLÆMA LEUCOMELAS (Bodd.), *Pied Barbet*.
Distr.—Throughout.
451. TRICHOLÆMA AFFINIS (Shelley), *Shelley's Barbet*.
Distr.—NCC. N. G.
452. STACTOLÆMA LEUCOTIS (Sundev.), *White-eared Barbet*.
Distr.—N. Z. ETv. P.
453. STACTOLÆMA SOWERBYI (Sharpe), *Sowerby's Barbet*.
Distr.—Rh.
454. STACTOLÆMA WOODWARDI (Shelley), *Woodward's Green Barbet*.
Distr.—Z.
455. BARBATULA PUSILLA (Dumont), *Tinker Bird*.
Distr.—ECC. N. Z.
456. BARBATULA EXTONI (Layard), *Exton's Tinker Bird*.
Distr.—Tv. B. Rh. P.
457. BARBATULA BILINEATA (Sundev.), *White-browed Tinker Bird*.
Distr.—Z. ETv.
458. TRACHYPHONUS CAFER (Vieill.), *Levaillant's Barbet*.
Distr.—N. Z. Tv. B. Rh. P.

FAMILY XIV.—CUCULIDÆ.

459. CUCULUS GULARIS (Steph.), *South African Cuckoo*.
Distr.—N. O. Tv. B. Rh. G.
460. CUCULUS CANORUS (Linn.), *European Cuckoo*.
Distr.—ECC. Tv. Rh. G. P.
461. CUCULUS POLIOCEPHALUS (Lath.), *Smaller Cuckoo*.
Distr.—N.
462. CUCULUS SOLITARIUS (Steph.), *Red-chested Cuckoo*.
Distr.—CC. N. ETv. P.
463. CUCULUS CLAMOSUS (Lath.), *Black Cuckoo*.
Distr.—ECC. N. Z. Tv. B. G.
464. CHRYSOCOCCYX SMARAGDINEUS (Swains.), *Emerald Cuckoo*.
Distr.—CC. N. Z. Rh.
465. CHRYSOCOCCYX KLAASI (Steph.), *Klaas' Cuckoo*.
Distr.—Throughout.
466. CHRYSOCOCCYX CUPREUS (Bodd.), *Didric Cuckoo*.
Distr.—Throughout.
467. COCCYSTES GLANDARIUS (Linn.), *Great Spotted Cuckoo*.
Distr.—Throughout except WCC.
- 468 COCCYSTES JACOBINUS (Bodd.), *Black and White Cuckoo*.
Distr.—Throughout except CC.
469. COCCYSTES HYPOPINARIUS (Cab. & Heine), *Black and Grey Cuckoo*.
Distr.—CC. N. Tv. P.
470. COCCYSTES CAFER (Licht.), *Levaillant's Cuckoo*.
Distr.—N. Tv. B. Rh. G. P.
471. COCCYSTES SERRATUS (Sparrm.), *Black-crested Cuckoo*.
Distr. CC. N. Tv.
472. CENTROPUS BURCHELLI (Swains.), *Burchell's Coucal*.
Distr.—CC. N. Tv. B. Rh. P.
473. CENTROPUS SENEGALENSIS (Linn.), *Senegal Coucal*.
Distr.—B. ?
474. CENTROPUS FLECKI (Reichw.), *Fleck's Coucal*.
Distr.—B.

475. *CENTROPUS CUPREICAUDA* (Reichw.), *Bronzy-tailed Coucal*.
Distr.—G. Rh.
476. *CENTROPUS SUPERCILIOSUS* (Hempr. & Ehr.), *White-browed Coucal*.
Distr.—N. Rh.
477. *CENTROPUS NIGRORUFUS* (Cuv.), *Natal Coucal*.
Distr.—N. Tv. Rh.
478. *CEUTHMOCHARES AUSTRALIS* (Sharpe), *Green Coucal*.
Distr.—N. Z. P.

FAMILY XV.—MUSCOPHAGIDÆ.

479. *TURACUS CORYTHAIX* (Wagl.), *Knysna Plantain-Eater* or *Lourie*.
Distr.—SCC. N. Z. ETv.
480. *TURACUS LIVINGSTONII* (Gray), *Livingstone's Lourie*.
Distr.—Z. Rh.
481. *GALLIREX PORPHYREOLOPHUS* (Vigors), *Purple-crested Lourie*.
Distr.—N. ETv. Rh.
482. *GALLIREX CHLOROCHLAMYS* (Shelley), *Zambesi Purple-crested Lourie*.
Distr.—Zambesi.
483. *SCHIZORHIS CONCOLOR* (Smith), *Grey Lourie*.
Distr.—Z. Tv. B. Rh. G. P.

ORDER III.—PSITTACI.

FAMILY I.—PSITTACIDÆ.

484. *PEOCEPHALUS ROBUSTUS* (Gmel.), *Levallant's Parrot*.
Distr.—CC. N.
- *485. *PEOCEPHALUS ROBUSTUS ANGOLENSIS* (Reichw.), *Brown-necked Parrot*.
Distr.—Rh. G.
486. *PEOCEPHALUS FUSCICAPILLUS* (Verr.), *Brown-headed Parrot*.
Distr.—Z. ETv. P.
487. *PEOCEPHALUS MEYERI* (Cretzch.), *Meyer's Parrot*.
Distr.—Tv. B. Rh. G. P.

488. *POEOCEPHALUS RUEPELLI* (Gray), *Rüppell's Parrot*.
Distr.—G.
489. *AGAPORNIS ROSEICOLLIS* (Vieill.), *Rosy-faced Lovebird*.
Distr.—N. CC. B. G.
490. *AGAPORNIS LILIANÆ* (Shelley), *Nyasaland Lovebird*.
Distr.—Zambesi.

ORDER IV.—STRIGES.

FAMILY I.—STIGIDÆ.

491. *STRIX FLAMMEA* (Linn.), *Barn Owl*.
Distr.—Throughout.
492. *STRIX CAPENSIS* (Smith), *Grass Owl*.
Distr.—CC. N. Tv.

FAMILY II.—BUBONIDÆ.

493. *ASIO CAPENSIS* (Smith), *Marsh Owl*.
Distr.—Throughout.
494. *ASIO LEUCOTIS* (Temm.), *White-faced Owl*.
Distr.—N. Tv. B. Rh. G.
495. *SYRNIUM WOODFORDI* (Smith), *Woodford's Owl*.
Distr.—CC. N. Tv. Rh.
496. *BUBO CAPENSIS* (Smith), *Cape Eagle-Owl*.
Distr.—CC. N. Z.
497. *BUBO MACULOSUS* (Vieill.), *Spotted Eagle-Owl*.
Distr.—Throughout.
498. *BUBO LACTEUS* (Temm.), *Verreaux's Eagle-Owl*.
Distr.—Throughout.
499. *SCOPS CAPENSIS* (Smith), *Cape Scops Owl*.
Distr.—Throughout.
500. *GLAUCIDIUM PERLATUM* (Vieill.), *Pearl-spotted Owl*.
Distr.—NCC. Z. Tv. B. Rh. G.
501. *GLAUCIDIUM CAPENSE* (Smith), *Barred Owl*.
Distr.—NCC. ETv. Rh. P.
502. *SCOTOPELIA PELI* (Bp.), *Pel's Fishing Owl*.
Distr.—ECC. N. Zambesi.

ORDER V.—ACCIPITRES.

FAMILY I.—FALCONIDÆ.

503. *FALCO MINOR* (Bp.), *South African Peregrine*.
Distr.—CC. N. Rh. G.
504. *FALCO BIARMICUS* (Temm.), *South African Lanner*.
Distr.—Throughout.
505. *FALCO SUBBUTEO* (Linn.), *Hobby*.
Distr.—CC. N. Rh. G.
506. *FALCO CUVIERI* (Smith), *African Hobby*.
Distr.—ECC. N.
507. *FALCO RUFICOLLIS* (Swains.), *Red-necked Falcon*.
Distr.—CC. N. Tv. P. G.
508. *TINNUNCULUS RUPICOLUS* (Daud.), *South African Kestrel*.
Distr.—Throughout.
509. *TINNUNCULUS RUPICOLOIDES* (Smith), *Larger Kestrel*.
Distr.—CC. N. O. Tv. B. Rh. G.
510. *TINNUNCULUS NAUMANNI* (Fleisch.), *Lesser Kestrel*.
Distr.—CC. N. Tv. B. Rh. G.
511. *TINNUNCULUS VESPERTINUS* (Linn.), *Western Red-legged Kestrel*.
Distr.—G.
512. *TINNUNCULUS AMURENSIS* (Radde), *Eastern Red-legged Kestrel*.
Distr.—Throughout.
513. *TINNUNCULUS DICKINSONI* (Sel.), *Dickinson's Kestrel*.
Distr.—Rh. G. P.
514. *BAZA VERREAUXI* (Laf.), *Cuckoo Falcon*.
Distr.—SCC. N. Z. Tv. Rh.
515. *POLIOHIERAX SEMITORQUATUS* (Smith), *Pigmy Falcon*.
Distr.—NCC. Tv. B. G.
516. *AQUILA VERREAUXI* (Less.), *Verreaux's Eagle*.
Distr.—CC. N. Tv.
517. *AQUILA RAPAX* (Temm.), *Tawny Eagle*.
Distr.—CC. N. Tv. B. G.

518. *AQUILA WAHLBERGI* (Sundev.), *Wahlberg's Eagle*.
Distr.—Tv. B. Rh. P. G.
519. *EUTOLMAËTUS PENNATUS* (Gmel.), *Booted Eagle*.
Distr.—CC. N. Tv. G.
520. *EUTOLMAËTUS SPILOGASTER* (Layard), *African Hawk-Eagle*.
Distr.—CC. N. Tv. Rh. G.
521. *EUTOLMAËTUS BELLICOSUS* (Daud.), *Martial Eagle*.
Distr.—Throughout except Rhodesia.
522. *SPIZAËTUS CORONATUS* (Linn.), *Crowned Hawk-Eagle*.
Distr.—SCC. N.
523. *LOPHOAËTUS OCCIPITALIS* (Daud.), *Crested Hawk-Eagle*.
Distr.—CC. N. Z. ETv.
524. *HALIAËTUS VOCIFER* (Daud.), *Sea Eagle*.
Distr.—Throughout.
525. *HELOTARSUS ECAUDATUS* (Daud.), *Bateleur*.
Distr.—Throughout except WCC.
526. *GYPOHIERAX ANGOLENSIS* (Gmel.), *Vulturine Sea Eagle*.
Distr.—Tv.
527. *GYPÆTUS OSSIFRAGUS* (Savign.), *Southern Lammergeyer*.
Distr.—CC. N. Tv.
528. *CIRCAËTUS PECTORALIS* (Smith), *Black-breasted Harrier-Eagle*.
Distr.—Throughout.
529. *CIRCAËTUS FASCIOLATUS* (Gray), *Banded Harrier-Eagle*.
Distr.—N.
530. *ASTURINULA MONOGRAMMICA* (Temm.), *African Buzzard-Eagle*.
Distr.—N. Z. Tv. Rh. G. P.
531. *BUTEO JAKAL* (Daud.), *Jackal Buzzard*.
Distr.—Throughout except Northern G.
532. *BUTEO AUGUR* (Rüpp.), *Augur Buzzard*.
Distr.—Rh.
533. *BUTEO DESERTORUM* (Grill), *Steppe Buzzard*.
Distr.—CC. O. Tv. G.
534. *MILVUS ÆGYPTIUS* (Gmel.), *Yellow-billed Kite*.
Distr.—CC. N. Z. Tv. Rh. G. P.

535. *MILVUS KORSCHUN* (Gmel.), *Black Kite*.
Distr.—G.
536. *ELANUS CÆRULEUS* (Desf.), *Black-shouldered Kite*.
Distr.—Throughout.
537. *MACHÆRAMPHUS ANDERSSONI* (Gurney), *Andersson's Pern*.
Distr.—N. G.
538. *PERNIS APIVORUS* (Linn.), *Honey Buzzard*.
Distr.—N. Tv. Rh. G.
539. *ACCIPITER MINULLUS* (Daud.), *Little Sparrow-Hawk*.
Distr.—CC. N. Z. Tv. B. G.
540. *ACCIPITER RUFIVENTRIS* (Smith), *African Sparrow-Hawk*.
Distr.—CC. N. Tv.
541. *ACCIPITER OVAMPENSIS* (Gurney), *Ovampo Sparrow-Hawk*.
Distr.—G. Rh.
542. *ACCIPITER MELANOLEUCUS* (Smith), *Black Sparrow-Hawk*.
Distr.—SCC. N.
543. *ASTUR TACHIRO* (Daud.), *African Goshawk*.
Distr.—CC. N. Z. Tv. G. P.
544. *ASTUR POLYZONOIDES* (Smith), *Little Banded Goshawk*.
Distr.—NCC. N. Tv. Rh. G.
545. *MELIERAX CANORUS* (Rislach), *Chanting Goshawk*.
Distr.—CC. N. Tv. B. G.
546. *MELIERAX MECHOWI* (Cab.), *Mechow's Goshawk*.
Distr.—G. Rh.
547. *MELIERAX GABAR* (Daud.), *Gabar Goshawk*.
Distr.—Throughout.
548. *MELIERAX NIGER* (Bonn. & Vieill.), *Black Goshawk*.
Distr.—CC. B. Tv. Rh. G.
549. *CIRCUS CINERACEUS* (Montagu), *Montagu's Harrier*.
Distr.—Throughout.
550. *CIRCUS MACRURUS* (Gmel.), *Pale Harrier*.
Distr.—Throughout.
551. *CIRCUS MAURUS* (Temm.), *Black Harrier*.
Distr.—CC. O. N.

552. *CIRCUS ÆRUGINOSUS* (Linn.), *Marsh Harrier*.
Distr.—Tv. Rh.
553. *CIRCUS RANIVORUS* (Daud.), *South African Harrier*
Distr.—Throughout except G. and Rh.
554. *POLYBOROIDES TYPICUS* (Smith), *Harrier Hawk*.
Distr.—CC. N. G. Rh.

FAMILY II.—VULTURIDÆ.

555. *GYPS KOLBII* (Daud.), *Kolbe's Vulture*.
Distr.—Throughout.
- *556. *GYPS RUEPPELLI* (Brehm), *Rüppell's Vulture*.
Distr.—N. Tv. Rh. G.
- *557. *PSEUDOGYPS AFRICANUS* (Salvad.), *African White-backed Vulture*.
Distr.—Tv.
558. *OTOGYPS AURICULARIS* (Daud.), *Black Vulture*.
Distr.—Throughout.
559. *LOPHOGYPS OCCIPITALIS* (Burchell), *White-headed Vulture*.
Distr.—NCC. N. B. G. Rh.
560. *NEOPHRON PERCNOPTERUS* (Linn.), *Egyptian Vulture*.
Distr.—Throughout.
561. *NECROSYRTES PILEATUS* (Burchell), *Hooded Vulture*.
Distr.—NCC. N. G. Rh.

FAMILY III.—PANDIONIDÆ.

562. *PANDION HALIAËTUS* (Linn.), *Osprey*.
Distr.—CC. N. Tv.

FAMILY IV.—SERPENTARIIDÆ.

563. *SERPENTARIUS SECRETARIUS* (Sparrm.), *Secretary Bird*.
Distr.—Throughout.

ORDER VI.—STEGANOPODES.

FAMILY I.—PHALACROCORACIDÆ.

564. PHALACROCORAX LUCIDUS (Licht.), *White-breasted Duiker*.
Distr.—S.A. Coasts and Rivers.
565. PHALACROCORAX CAPENSIS (Sparrrn.), *Trek Duiker*.
Distr.—S.A. Coasts.
566. PHALACROCORAX NEGLECTUS (Wahlb.), *Bank Duiker*.
Distr.—W. Coasts.
567. PHALACROCORAX AFRICANUS (Gmel.), *Reed Duiker*.
Distr.—Throughout.
568. PLOTUS RUFUS (Lacep. & Daud.), *Snake Bird*.
Distr.—Larger Rivers of South Africa.

FAMILY II.—SULIDÆ.

569. SULA CAPENSIS (Licht.), *Malagash*.
Distr.—Coasts S.A.
570. SULA CYANOPS (Sundev.), *Masked Booby*.
Distr.—Cape Seas.
571. SULA LEUCOGASTRA (Bodd.), *Brown Booby*.
Distr.—Cape Seas.

FAMILY III.—FREGATIDÆ.

572. FREGATA AQUILA (Linn.), *Frigate Bird*.
Distr.—Cape Seas.

FAMILY IV.—PHAËTHONTIDÆ.

573. PHAËTHON RUBRICAUDA (Bodd.), *Red-tailed Tropic Bird*.
Distr.—Cape Seas.

FAMILY V.—PELECANIDÆ.

574. PELECANUS ROSEUS (Gmel.), *Eastern White Pelican*.
Distr.—Coasts, Lake Ngami, Zambesi.
575. PELECANUS RUFESCENS (Gmel.), *Pink-backed Pelican*.
Distr.—Coasts CC. and N.

ORDER VII.—HERODIONES.

FAMILY I.—CICONIIDÆ.

576. ABDIMIA ABDIMII (Licht.), *White-bellied Stork*.
Distr.—NCC. Tv. B. Rh. G.
577. DISSOURA MICROSCELIS (Gray), *Woolly-necked Stork*.
Distr.—ECC. N.
578. CICONIA ALBA (Linn.), *White Stork*.
Distr.—CC. N. Tv. B. Rh. G.
579. CICONIA NIGRA (Linn.), *Black Stork*.
Distr.—CC. N. Tv. Rh.
580. ANASTOMUS LAMELLIGERUS (Temm.), *African Open-Bill*.
Distr.—N. Tv. B. Rh. G.
581. EPHIPPIORHYNCHUS SENEGALENSIS (Shaw), *Saddle-Bill* or
African Jabiru.
Distr.—Throughout, though rare.
582. LEPTOPTILUS CRUMENIFERUS (Less.), *Marabou*.
Distr.—Throughout, rare in south.
583. PSEUDOTANTALUS IBIS (Linn.), *Wood Ibis*.
Distr.—Throughout, but rare in south.

FAMILY II.—SCOPIDÆ.

584. SCOPUS UMBRETTA (Gmel.), *Hammerkop*.
Distr.—Throughout.

FAMILY III.—ARDEIDÆ.

585. ARDEA GOLIATH (Cretzschm.), *Goliath Heron*.
Distr.—Throughout.
586. ARDEA CINEREA (Linn.), *Grey Heron*.
Distr.—Throughout.
587. ARDEA MELANOCEPHALA (Vig. & Childr.), *Black-headed Heron*.
Distr.—Throughout.
588. ARDEA PURPUREA (Linn.), *Purple Heron*.
Distr.—Throughout.

589. *HERODIAS ALBA* (Linn.), *Great White Egret*.
Distr.—Throughout.
590. *HERODIAS BRACHYRHYNCHA* (Brehm), *Yellow-billed Egret*.
Distr.—Throughout.
591. *HERODIAS GARZETTA* (Linn.), *Little Egret*.
Distr.—Throughout.
592. *MELANOPHOYX ARDESIACA* (Wagl.), *Black Heron*.
Distr.—N. Tv.
593. *MELANOPHOYX VINACEIGULA* (Sharpe), *Red-throated Heron*.
Distr.—Tv.
594. *BUBULCUS IBIS* (Linn.), *Cattle Egret*.
Distr.—Throughout.
595. *ARDEOLA RALLOIDES* (Scop.), *Squacco Heron*.
Distr.—Throughout.
596. *ERYTHROCYNUS RUFIVENTRIS* (Sundev.), *Rufous-bellied Heron*.
Distr.—ECC. N. Z. Tv. B. Rh. G. P.
597. *BUTORIDES ATRICAPILLA* (Afzel.), *Green-backed Heron*.
Distr.—ECC. N. Z. Tv. B. Rh. G. P.
598. *NYCTICORAX GRISEUS* (Linn.), *Night Heron*.
Distr.—Throughout.
599. *NYCTICORAX LEUCONOTUS* (Wagl.), *White-backed Night Heron*.
Distr.—ECC. Tv.
600. *ARDETTA PAYESI* (Hartl.), *Red-necked Little Bittern*.
Distr.—Throughout.
601. *ARDETTA MINUTA* (Linn.), *European Little Bittern*.
Distr.—ECC.
602. *ARDETTA STURMI* (Wagl.), *African Dwarf Bittern*.
Distr.—Throughout.
603. *BOTAURUS CAPENSIS* (Schlegl.), *Cape Bittern*.
Distr.—CC. N. O. Tv. B.

FAMILY IV.—IBIDIDÆ.

604. *IBIS ETHIOPICA* (Lath.), *Sacred Ibis*.
Distr.—Throughout.

605. GERONTICUS CALVUS (Bodd.), *Bald Ibis*.
Distr.—CC. N. Z. O.
606. HAGEDASHIA HAGADASH (Lath.), *Hadada*.
Distr.—SCC. N. Tv. B. P.
607. PLEGADIS FALCINELLUS (Linn.), *Glossy Ibis*.
Distr.—Throughout.

FAMILY V.—PLATALEIDÆ.

608. PLATALEA ALBA (Scop.), *African Spoonbill*.
Distr.—Throughout.

ORDER VIII.—ODONTOGLOSSÆ.

FAMILY I.—PHENICOPTERIDÆ.

609. PHENICOPTERUS ROSEUS (Pall.), *Greater Flamingo*.
Distr.—Throughout.
610. PHENICOPTERUS MINOR (Geoffr.), *Lesser Flamingo*.
Distr.—CC. N. B. G. P.

ORDER IX.—ANSERES.

FAMILY I.—ANATIDÆ.

611. PLECTROPTERUS GAMBENSIS (Linn.), *Spur-wing Goose*.
Distr.—Throughout, rare south of Orange River.
612. PLECTROPTERUS NIGER (Sc.), *Black Spur-winged Goose*.
Distr.—Tv. P.
613. SARCIDIORNIS MELANONOTA (Penn.), *Knob-billed Duck*.
Distr.—Tv. B. Rh. G.
614. NETTOPUS AURITUS (Bodd.), *Dwarf Goose*.
Distr.—Throughout except G.
615. DENDROCYNNA VIDUATA (Linn.), *White-faced Duck*.
Distr.—N. Tv. B. Rh. P.
616. DENDROCYNNA FULVA (Gmel.), *Whistling Duck*.
Distr.—B. G. N.

617. *ALOPOCHEN ÆGYPTIACUS* (Linn.), *Berg Gans*.
Distr.—Throughout.
618. *CASARCA CANA* (Gmel.), *South African Shelduck*.
Distr.—CC. O. Tv.
619. *ANAS UNDULATA* (Dubois), *Geelbek*.
Distr.—Throughout except G.
620. *ANAS SPARSA* (Smith), *Black Duck*.
Distr.—CC. N. Z. Tv. B. Rh.
621. *NETTION CAPENSE* (Gmel.), *Cape Widgeon*.
Distr.—WCC. Tv. B. G.
622. *NETTION PUNCTATUS* (Burch.), *Hottentot Teal*.
Distr.—CC. N. Tv. B. G. P.
623. *PŒCILONETTA ERYTHORHYNCHA* (Gmel.), *Red-bill*.
Distr.—Throughout.
624. *SPATULA CLYPEATA* (Linn.), *European Shoveller*.
Distr.—Near Cape Town, once.
625. *SPATULA CAPENSIS* (Smith), *Cape Shoveller*.
Distr.—CC. N. Tv. B. G.
626. *NYROCA ERYTHROPHALMA* (Wied), *South African Pochar*.
Distr.—Throughout.
627. *THALASSIORNIS LEUCONOTA* (Smith), *White-backed Duck*.
Distr.—Throughout except Rh.
628. *ERISMATURA MACCOA* (Smith), *Maccoa Duck*.
Distr.—CC. Tv. P.

ORDER X.—COLUMBÆ.

FAMILY I.—TRERONIDÆ.

629. *VINAGO DELALANDII* (Bp.), *Delalande's Green Pigeon*.
Distr.—ECC. N. Tv. Rh. P.
630. *VINAGO SCHALOWI* (Reichw.), *Schalow's Green Pigeon*.
Distr.—NCC. Rh. G.

FAMILY II.—COLUMBIDÆ.

631. COLUMBA PHÆONOTA (G. R. Gray), *Speckled Pigeon*.
Distr.—Throughout.
632. COLUMBA ARQUATRIX (Temm. & Knip), *Olive Pigeon*.
Distr.—CC. N. Z. Tv.
633. TURTURÆNA DELAGORGUEI (Delagorgue), *Delagorgue's Pigeon*.
Distr.—N. Z.
634. TURTUR SEMITORQUATUS (Rüpp.), *Red-eyed Dove*.
Distr.—CC. N. B. Rh. G.
635. TURTUR AMBIGUUS (Boc.), *Bocage's Red-eyed Dove*.
Distr.—Zambesi.
636. TURTUR CAPICOLA (Sundev.), *Cape Turtle Dove*.
Distr.—Throughout except G.
637. TURTUR CAPICOLA DAMARENSIS (Finch & Hartl.), *Damaraland Turtle Dove*.
Distr.—G.
638. TURTUR SENEGALENSIS (Linn.), *Laughing Dove*.
Distr.—Throughout.
639. CENA CAPENSIS (Linn.), *Namaqua Dove*.
Distr.—Throughout.
640. TYMPANISTRIA BICOLOR (Reichenb.), *Tambourine Dove*.
Distr.—SCC. N. Z.
641. CHALCOPELIA AFRA (Linn.), *Emerald Spotted Dove*.
Distr.—CC. N. Z. Tv. B. Rh. G.
642. HAPLOPELIA LARVATA (Temm. & Knip), *Lemon Dove*.
Distr.—CC. N. Z. ETv.

ORDER XI.—PTEROCLETES.

FAMILY I.—PTEROCLIDÆ.

643. PTEROCLES VARIAGATUS (Burch.), *Spotted Sandgrouse*.
Distr.—NCC. WTV. B. G.
644. PTEROCLES GUTTURALIS (Smith), *Yellow-throated Sandgrouse*.
Distr.—NCC. O. Tv. B. Rh.
645. PTEROCLES BICINCTUS (Temm.), *Double-banded Sandgrouse*.
Distr.—NCC. Tv. B. G. P.

646. *PTEROCLURUS NAMAQUA* (Gmel.), *Namaqua Sandgrouse*.
Distr.—CC. O. Tv. B. G.

ORDER XII.—GALLINÆ.

FAMILY I.—PHASIANIDÆ.

647. *FRANCOLINUS COQUI* (Smith), *Coqui Francolin*.
Distr.—N. Tv. B. Rh.
648. *FRANCOLINUS SEPHÆNA* (Smith), *Crested Francolin*.
Distr.—Z. Tv. B. G. P.
649. *FRANCOLINUS AFRICANUS* (Steph.), *Greywing*.
Distr.—CC. O. Tv. N.
650. *FRANCOLINUS LEVAILLANTI* (Valenc.), *Cape Redwing*.
Distr.—CC. N. O. Tv.
651. *FRANCOLINUS GARIEPENSIS* (Smith), *Orange River Francolin*.
Distr.—NCC. O. STv. B.
652. *FRANCOLINUS JUGULARIS* (Buttik.), *Büttikofer's Francolin*.
Distr.—G.
653. *FRANCOLINUS SHELLEYI* (Grant), *Shelley's Francolin*.
Distr.—N. Rh. P.
654. *FRANCOLINUS ADSPERSUS* (Waterh.), *Red-billed Francolin*.
Distr.—WTV. B. G.
655. *FRANCOLINUS CAPENSIS* (Gmel.), *Cape Pheasant*.
Distr.—CC.
656. *FRANCOLINUS NATALENSIS* (Smith), *Natal Francolin*.
Distr.—N. Tv. B. Rh. P.
657. *PTERNISTES NUDICOLLIS* (Bodd.), *Red-necked Francolin*.
Distr.—CC. N.
658. *PTERNISTES HUMBOLDTI* (Peters), *Humboldt's Francolin*.
Distr.—Rh. P.
659. *PTERNISTES SWAINSONI* (Smith), *Swainson's Francolin*.
Distr.—NCC. Tv. Rh. G.
660. *COTURNIX AFRICANA* (Temm. and Schleg.), *Cape Quail*.
Distr.—Throughout.

661. *COTURNIX DELAGORGUEI* (Delagorgue), *Harlequin Quail*.
Distr.—ECC. N. O. Tv. B. Rh. G. P.
662. *EXCALFACTORIA ADANSONI* (Verr.), *Blue Quail*.
Distr.—ECC. N.
663. *NUMIDA CORONATA* (Gray), *Common Guinea Fowl*.
Distr.—ECC. N. Z. O. Tv. B. Rh.
664. *NUMIDA PAPILLOSA* (Reichw.), *Damaraland Guinea Fowl*.
Distr.—G.
665. *NUMIDA MITRATA* (Pall.), *East African Guinea Fowl*.
Distr.—Zambesi Valley.
666. *GUTTERA EDOUARDI* (Hartl.), *Crested Guinea Fowl*.
Distr.—N. Z. Tv. Rh. P.

ORDER XIII.—HEMIPODII.

FAMILY I.—TURNICIDÆ.

667. *TURNIX HOTTENTOTTA* (Temm.), *Hottentot Hemipode*.
Distr.—SCC.
668. *TURNIX LEPURANA* (Smith), *Kurrichane Hemipode*.
Distr.—Throughout except in CC.
669. *TURNIX NANA* (Sundev.), *Natal Hemipode*.
Distr.—ECC. N.

ORDER XIV.—FULICARIÆ.

FAMILY I.—RALLIDÆ.

670. *RALLUS CÆRULESCENS* (Gmel.), *Kaffir Rail*.
Distr.—CC. N. Tv. Rh. G.
671. *CREX PRATENSIS* (Bechst.), *European Corn Crake*.
Distr.—CC. N. Z. Tv. B. Rh.
672. *CREX EGREGIA* (Peters), *African Corn Crake*.
Distr.—N. Tv. Rh. G. P.
673. *ORTYGOMETRA PORZANA* (Linn.), *Spotted Crake*.
Distr.—B. Zambesi.

674. ORTYGOMETRA PUSILLA (Pall.), *Baillon's Crake*.
Distr.—Throughout.
675. SAUROTHRURA LINEATA (Swains.), *Jardine's Crake*.
Distr.—CC. N. Rh.
676. SAUROTHRURA ELEGANS (Smith), *White-spotted Crake*.
Distr.—CC. N.
677. SAUROTHRURA RUFA (Vieill.), *Red-chested Crake*.
Distr.—CC. N. Tv. G.
678. COTURNICOPS AYRESI (Gurney), *White-winged Crake*.
Distr.—CC. N. Tv.
679. LIMNOBÆNUS MARGINALIS (Bp.), *Hartlaub's Crake*.
Distr.—CC. G.
680. LIMNOCORAX NIGER (Gmel.), *Black Crake*.
Distr.—Throughout.
681. GALLINULA CHLOROPUS (Linn.), *Moor-Hen*.
Distr.—Throughout.
682. GALLINULA ANGULATA (Sundev.), *Lesser Moor-Hen*.
Distr.—Throughout, rare South of Orange.
683. PORPHYRIO MADAGASCARIENSIS (Lath.), *King Reed-Hen*.
Distr.—Throughout except Rh.
684. PORPHYRIO ALLENI (Thompson), *Allen's Reed-Hen*.
Distr.—CC. Tv. B. Rh. G. P.
685. FULICA CRISTATA (Gmel.), *Red-knobbed Coot*.
Distr.—Throughout.

FAMILY II.—HELIORNITHIDÆ.

686. PODICA PETERSI (Hartl.), *Peters' Finfoot*.
Distr.—ECC. N. Tv.

ORDER XV.—ALECTORIDES.

FAMILY I.—GRUIDÆ.

687. BUGERANUS CARUNCULATUS (Gmel.), *Wattled Crane*.
Distr.—CC. N. B. Rh. G.

688. *TETRAPTERYX PARADISEA* (Licht.), *Blue Crane*.
Distr.—Throughout except Lower N. and Z.
689. *BALEARICA REGULORUM* (Bennett), *Crowned Crane*.
Distr.—ECC. N. O. Tv. B. Rh. G. P.

FAMILY II.—OTIDÆ.

690. *OTIS RUFICRISTA* (Smith), *Red-crested Knorhaan*.
Distr.—NCC. Tv. B. Rh. G.
691. *OTIS AFRA* (Gmel.), *Black Knorhaan*.
Distr.—CC.
692. *OTIS AFROIDES* (Smith), *White-quilled Knorhaan*.
Distr.—NCC. O. Tv. B. G.
693. *OTIS VIGORSI* (Smith), *Vaal Knorhaan*.
Distr.—CC. UN. O. Tv.
694. *OTIS RUEPPELLI* (Wahlb.), *Rüppell's Knorhaan*.
Distr.—G.
695. *OTIS LUDWIGII* (Rüpp.), *Ludwig's Paauw*.
Distr.—CC. UN. Tv. O.
696. *OTIS CAFRA* (Licht.), *Stanley's Paauw*.
Distr.—CC. UN. O. Tv.
697. *OTIS MELANOGASTER* (Rüpp.), *Black-bellied Knorhaan*.
Distr.—N. Z. Rh.
698. *OTIS HARTLAUBI* (Heugl.), *Hartlaub's Knorhaan*.
Distr.—?
699. *OTIS CÆRULESCENS* (Vieill.), *Blue Knorhaan*.
Distr.—CC. UN. O. STv.
700. *OTIS BARROWI* (J. E. Gray), *Barrow's Knorhaan*.
Distr.—CC. UN. O. Tv. B.
701. *OTIS KORI* (Burch.), *Gom Paauw*.
Distr.—Throughout.

ORDER XVI.—LIMICOLÆ.

FAMILY I.—ÆDICNEMIDÆ.

702. *ÆDICNEMUS CAPENSIS* (Licht.), *Dikkop*.
Distr.—Throughout.
703. *ÆDICNEMUS VERMICULATUS* (Cab.), *Water Dikkop*.
Distr.—Throughout.

FAMILY II.—DROMADIDÆ.

704. *DROMAS ARDEOLA* (Payk.), *Crab Plover*.
Distr.—N. Coast.

FAMILY III.—GLAREOLIDÆ.

705. *CURSORIUS RUFUS* (Gould), *Burchell's Courser*.
Distr.—CC., N. O. Tv.
706. *CURSORIUS TEMMINCKI* (Swains.), *Temminck's Courser*.
Distr.—ECC. N. Z. Tv. Rh. G.
707. *RHINOPTILUS AFRICANUS* (Temm.), *Two-banded Courser*.
Distr.—CC. O. Tv. B. G.
708. *RHINOPTILUS SEEBOHMI* (Sharpe), *Seebohm's Courser*.
Distr.—Rh. G.
709. *RHINOPTILUS CHALCOPHTERUS* (Temm.), *Bronze-wing Courser*.
Distr.—Throughout.
710. *GLAREOLA PRATINCOLA* (Linn.), *Pratincole*.
Distr.—CC. N. G. P.
711. *GLAREOLA MELANOPTERA* (Nordm.), *Nordmann's Pratincole*.
Distr.—Throughout except Rh.
712. *GALACTOCHRYSEA EMINI* (Shelley), *Emin's Pratincole*.
Distr.—Zambesi.

FAMILY IV.—PARRIDÆ.

713. *ACTOPHILUS AFRICANUS* (Gmel.), *African Jacana*.
Distr.—Throughout.
714. *MICROPARA CAPENSIS* (Smith), *Smaller Jacana*.
Distr.—ECC. N. Rh. B.

FAMILY V.—CHARADRIIDÆ.

715. *ARENARIA INTERPRES* (Linn.), *Turnstone*.
Distr.—Sea Coasts.
716. *LOBIVANELUS LATERALIS* (Smith), *Wattled Plover*.
Distr.—N. Z. Tv. B. Rh. G.
717. *XIPHIDIPTERUS ALBICEPS* (Gould), *White-headed Wattled Plover*.
Distr.—Tv. Rh. P.
718. *HEMIPARRA LEUCOPTERA* (Sharpe), *Long-toed Lapwing*.
Distr.—Z. Rh.
719. *HOPLOPTERUS ARMATUS* (Burch.), *Blacksmith Plover*.
Distr.—NCC. O. Tv. N. B. G.
720. *STEPHANIBYX CORONATUS* (Bodd.), *Crowned Lapwing*.
Distr.—Throughout except Rh.
721. *STEPHANIBYX MELANOPTERUS* (Cretzsch.), *Black-winged Plover*.
Distr.—CC. N.
722. *STEPHANIBYX INORNATUS* (Swains.), *Swainson's Plover*.
Distr.—N.
723. *SQUATAROLA HELVETICA* (Linn.), *Grey Plover*.
Distr.—Sea Coasts and G.
724. *ÆGIALITIS GEOFFROYI* (Wagl.), *Great Sand-Plover*.
Distr.—CC. N.
725. *ÆGIALITIS ASIATICA* (Pall.), *Caspian Plover*.
Distr.—Throughout.
726. *ÆGIALITIS HIATICOLA* (Linn.), *Ringed Plover*.
Distr.—Throughout except Rh.
727. *ÆGIALITIS ALEXANDRINA* (Linn.), *Kentish Plover*.
Distr.—G.
728. *ÆGIALITIS TRICOLLARIS* (Vieill.), *Three-banded Plover*.
Distr.—Throughout.
729. *ÆGIALITIS VENUSTA* (Fisch. & Reichw.), *Fischer's Sand Plover*.
Distr.—CC. (Port Elizabeth once).
730. *ÆGIALITIS MARGINATA* (Vieill.), *White-fronted Sand Plover*.
Distr.—Sea Coasts, G. to N.

731. *ÆGIALITIS MARGINATUS PALLIDUS* (Strickl.), *Tropical White-fronted Sand Plover*.
Distr.—Zambesi.
732. *ÆGIALITIS PECUARIA* (Temm.), *Kittlitz's Sand Plover*.
Distr.—Throughout.
733. *HÆMATOPUS MOQUINI* (Bp.), *Black Oyster-Catcher*.
Distr.—Coasts, G. to N.
734. *HIMANTOPUS CANDIDUS* (Bonn.), *Black-winged Stint*.
Distr.—Throughout.
735. *RECURVIROSTRA AVOCETTA* (Linn.), *Avocet*.
Distr.—CC. N. G. Zambesi.
736. *NUMENIUS ARQUATUS* (Linn.), *Curlew*.
Distr.—CC. N. Tv. G. P.
737. *NUMENIUS PHŒOPUS* (Linn.), *Whimbrel*.
Distr.—CC. N. Tv. G.
738. *TOTANUS CALIDRIS* (Linn.), *Redshank*.
Distr.—CC. N. B. G.
739. *TOTANUS NEBULARIUS* (Gunn.), *Greenshank*.
Distr.—Throughout.
740. *TOTANUS STAGNATILIS* (Bechst.), *Marsh Sandpiper*.
Distr.—Throughout.
741. *TOTANUS GLAREOLA* (Linn.), *Wood Sandpiper*.
Distr.—Throughout.
742. *TOTANUS OCHROPUS* (Linn.), *Green Sandpiper*.
Distr.—CC. ?
743. *TOTANUS CINEREUS* (Güldenst.), *Terek Sandpiper*.
Distr.—CC. N. G.
744. *TOTANUS HYPOLEUCUS* (Linn.), *Common Sandpiper*.
Distr.—Throughout.
745. *PAVONCELLA PUGNAX* (Linn.), *Ruff*.
Distr.—Throughout.
746. *TRINGA CANUTUS* (Linn.), *Knot*.
Distr.—G.
747. *TRINGA BAIRDI* (Coues), *Baird's Sandpiper*.
Distr.—G.

748. *TRINGA MINUTA* (Leisl.), *Little Stint*.
Distr.—Throughout.
749. *TRINGA SUBARQUATA* (Güldenst.), *Curlew Sandpiper*.
Distr.—Throughout.
750. *CALIDRIS ARENARIA* (Linn.), *Sanderling*.
Distr.—Coasts throughout.
751. *GALLINAGO MEDIA* (Gerini), *Double Snipe*.
Distr.—CC. N. Tv. B. G.
752. *GALLINAGO NIGRIPENNIS* (Bp.), *Ethiopian Snipe*.
Distr.—Throughout.
753. *ROSTRATULA CAPENSIS* (Linn.), *Painted Snipe*.
Distr.—Throughout.

ORDER XVII.—GAVIÆ.

FAMILY I.—LARIDÆ.

754. *LARUS DOMINICANUS* (Licht.), *Southern Black-backed Gull*.
Distr.—Coasts S.A.
755. *LARUS HARTLAUBI* (Bruch.), *Hartlaub's Gull*.
Distr.—Coasts G. EC.
756. *LARUS CIRRHOCEPHALUS* (Vieill.), *Grey-headed Gull*.
Distr.—CC. N. Z. Tv. B. G. P.

FAMILY II.—STERNIDÆ.

757. *HYDROCHELIDON HYBRIDA* (Pall.), *Whiskered Tern*.
Distr.—Throughout.
758. *HYDROCHELIDON LEUCOPTERA* (Meis. and Schinz), *White-winged Black Tern*.
Distr.—O. Tv. B. G. P.
759. *STERNA CASPIA* (Pall.), *Caspian Tern*.
Distr.—Coasts S.A.
760. *STERNA BERGII* (Licht.), *Swift Tern*.
Distr.—Coasts S.A.
761. *STERNA CANTIANA* (Gmel.), *Sandwich Tern*.
Distr.—Coasts CC. N. G.

762. STERNA MEDIA (Horsf.), *Smaller Crested Tern*.
Distr.—N.
763. STERNA DOUGALLI (Mont.), *Roseate Tern*.
Distr.—Coasts CC.
764. STERNA VITTATA (Gmel.), *Kerguelen Tern*.
Distr.—Coasts CC.
765. STERNA FLUVIATILIS (Naum.), *Common Tern*.
Distr.—Coasts G. CC.
766. STERNA MACRURA (Naum.), *Arctic Tern*.
Distr.—CC. N.
767. STERNA BALÆNARUM (Strickl.), *Damara Tern*.
Distr.—Coasts G. CC.
768. STERNA MINUTA (Linn.), *Little Tern*.
Distr.—Coasts S.A.
769. STERNA SAUNDERSI (Hume), *Saunders' Tern*.
Distr.—Coasts N.
770. STERNA FULIGINOSA (Gmel.), *Sooty Tern*.
Distr.—Cape Seas.
771. ANOUS STOLIDUS (Linn.), *Noddy*.
Distr.—Cape Seas.
772. MICRANOUS LEUCOCAPILLUS (Gould), *Lesser Noddy*.
Distr.—Cape Seas.
773. GYGIS CANDIDA (Gmel.), *White Noddy*.
Distr.—Cape Seas.

FAMILY III.—RHYNCHOPIDÆ.

774. RHYNCOPS FLAVIROSTRIS (Vieill.), *African Skimmer*.
Distr.—NCC. Tv. B. G. Zambesi.

FAMILY IV.—STERCORARIIDÆ.

775. STERCORARIUS ANTARCTICUS (Less.), *Southern Skua*.
Distr.—Coasts G. CC.
776. STERCORARIUS CREPIDATUS (Banks), *Richardson's Skua*.
Distr.—Coasts G. CC.
777. STERCORARIUS POMATORHINUS (Temm.), *Pomatorhine Skua*.
Distr.—Coasts G.

ORDER XVIII.—TUBINARES.

FAMILY I.—OCEANITIDÆ.

778. OCEANITES OCEANICUS (Kuhl), *Wilson's Petrel*.
Distr.—Coasts G. CC.
779. GARRODIA NEREIS (Gould), *Garrod's Petrel*.
Distr.—Cape Seas.
780. FREGETTA MELANOGASTER (Gould), *Black-bellied Petrel*.
Distr.—Cape Seas.
781. FREGETTA GRALLARIA (Vieill.), *White-bellied Petrel*.
Distr.—Cape Seas.

FAMILY II.—PROCELLARIIDÆ.

782. PROCELLARIA PELAGICA (Linn.), *Storm Petrel*.
Distr.—Coasts G. CC.
783. OCEANODROMA LEUCORRHOA (Vieill.), *Leach's Fork-tailed Petrel*.
Distr.—Cape Seas.
784. PUFFINUS GRAVIS (O'Reilly), *Great Shearwater*.
Distr.—Cape Seas.
785. PUFFINUS KUHLI (Boie), *Mediterranean Shearwater*.
Distr.—Cape Seas.
786. PUFFINUS ASSIMILIS (Gould), *Gould's Little Shearwater*.
Distr.—Cape Seas.
787. PUFFINUS GRISEUS (Gmel.), *Sooty Shearwater*.
Distr.—Cape Seas.
788. PRIOFINUS CINEREUS (Gmel.), *Great Grey Petrel*.
Distr.—Cape Seas.
789. PRIOCELLA GLACIALOIDES (Smith), *Silver-grey Petrel*.
Distr.—Cape Seas.
790. MAJAEQUEUS ÆQUINOCTIALIS (Linn.), *Cape Hen*.
Distr.—Coasts G. CC. N. P.
791. ŒSTRELATA MACROPTERA (Smith), *Long-winged Petrel*.
Distr.—Cape Seas.

792. *ŒSTRELATA LESSONI* (Garnot), *Lesson's Petrel*.
Distr.—Cape Seas.
793. *ŒSTRELATA INCERTA* (Schlegl.), *Schlegel's Petrel*.
Distr.—Cape Seas.
794. *ŒSTRELATA MOLLIS* (Gould), *Soft-plumaged Petrel*.
Distr.—Cape Seas.
795. *OSSIFRAGA GIGANTEA* (Gmel.), *Giant Petrel*.
Distr.—Cape Seas.
796. *DAPTION CAPENSIS* (Linn.), *Cape Pigeon*.
Distr.—Cape Seas.
797. *PRION CÆRULEA* (Gmel.), *Blue Petrel*.
Distr.—Cape Seas.
798. *PRION BANKSI* (Smith), *Banks' Blue Petrel*.
Distr.—Cape Seas.
799. *PRION VITTATUS* (Gmel.), *Broad-billed Blue Petrel*.
Distr.—Cape Seas.
800. *PRION DESOLATUS* (Gmel.), *Narrow-billed Blue Petrel*.
Distr.—Cape Seas.
801. *PRION BREVIROSTRIS* (Gould), *Fairy Blue Petrel*.
Distr.—Cape Seas.
802. *PELECANOIDES EXUL* (Cab. & Reichw.), *Diving Petrel*.
Distr.—Cape Seas.
803. *DIOMEDEA EXULANS* (Linn.), *Wandering Albatross*.
Distr.—Cape Seas.
804. *DIOMEDEA MELANOPHRYS* (Temm.), *Mollymawk*.
Distr.—Cape Seas.
805. *THALASSOGERON CULMINATUS* (Gould), *Gould's Yellow-nosed Mollymawk*.
Distr.—Cape Seas.
806. *THALASSOGERON CHLORORHYNCHUS* (Gmel.), *Yellow-nosed Mollymawk*.
Distr.—Cape Seas.
807. *THALASSOGERON LAYARDI* (Salvin), *Layard's Mollymawk*.
Distr.—Cape Seas.
808. *PHŒBETRIA FULIGINOSA* (Gmel.), *Sooty Albatross*.
Distr.—Cape Seas.

ORDER XIX.—PYGOPODES.

FAMILY I.—PODICIPEDIDÆ.

809. *PODICIPES CRISTATUS* (Linn.), *Crested Grebe*.
Distr.—CC. O. Tv.
810. *PODICIPES NIGRICOLLIS* (Brehm), *Eared Grebe*.
Distr.—CC. Tv. B. G.
811. *PODICIPES CAPENSIS* (Licht.), *Cape Dabchick*.
Distr.—Throughout.

ORDER XX.—IMPENNES.

FAMILY I.—SPHENISCIDÆ.

812. *SPHENISCUS DEMURSUS* (Linn.), *Jackass Penguin*.
Distr.—Coasts G. CC.
813. *CATARRHACTES CHRYSOCOME* (Forster), *Rock-hopper Penguin*.
Distr.—Coasts CC.

ORDER XXI.—STRUTHIONES.

FAMILY I.—STRUTHIONIDÆ.

814. *STRUTHIO AUSTRALIS* (Gurney), *Southern Ostrich*.
Distr.—Throughout.

(3) NOTES ON THE SPECIES MARKED WITH AN ASTERISK
IN THE CHECK LIST.5. *BUPHAGA ERYTHORHYNCHA* (Stanley).

The eggs of this species are wrongly described in the first volume of the Fauna. Mr. Millar informs me that he has taken a large number of nests, and that the birds build in his garden near Durban every year. The eggs are always white with purplish-red spots and blotches, slightly varying in size and measure about $\cdot 95 \times \cdot 70$ inches.

The nesting season is from the end of October to the middle of December, and the clutch usually consists of three eggs.

6. CREATOPHORA CARUNCULATA (Gmel.).

The generic name *Dilophus* proposed by Vieillot in 1816 being preoccupied, having been used by Meigen for a genus of Diptera in 1804, Mr. Oberholser (Proc. Acad., Philad., 1899, p. 216) has suggested *Perissornis*. Richmond, however (Auk, xix. p. 92) has recently rediscovered the name *Creatophora* of Lesson assigned to this bird in 1847, and by this name it should be in future known.

8. AMYDRUS CAFFER (Linn.).

Reichenow (Vög. Afr. ii. p. 697) distinguishes a subspecies var. *intensetincta* from Port Elizabeth and the eastern province of Cape Colony. It is distinguished by its slightly larger size and by the slightly darker colour of the quills, especially at the base. The specimens in the South African Museum hardly justify this race, though it is adopted by Mr. Sharpe (Ibis, 1904, p. 366) for birds collected at Deelfontein.

19. CINNYRICINCLUS LEUCOGASTER VERREAUXI (Boc.).

The name of this genus must be changed to *Cinnyricinclus* (Less. Rev. Zool., 1840, p. 272), which antedates *Pholidauges* of Cabanis by eleven years.

19A. STURNUS VULGARIS Linn.

The English Starling has, during the last few years, completely established itself in Cape Town and the various suburbs extending round the slopes of Table Mountain; it has also been seen as far as Stellenbosch about twenty-five miles inland. It is said that a few pairs were imported and turned out in the Groote Schur grounds at Rondebosch some years ago (I believe in 1898), together with several other species of English birds, by Mr. Cecil Rhodes. The Starling, however, is the only one which has thoroughly established itself and spread any distance from its original starting-point.

It nests freely about Cape Town and the suburbs, choosing somewhat similar sites to those made use of in England, such as attics, chimneys, watershoots, and other convenient places about dwelling-houses.

21A. ORIOLUS AURATUS Vieill.

This Oriole was met with by Alexander on the banks of the Zambesi, near Zumbo, in December, and should therefore be included in our fauna. It is a West and North-east African bird closely allied

to *O. notatus*. It can be distinguished from that species by the black base to the otherwise yellow outer tail feather.

GENUS HYPHANTORNIS.

The key given by Dr. Stark (p. 55) does not seem to me a very satisfactory one. I would suggest the following, which, however, only deals with the males in breeding plumage, but which appears to me to make matters somewhat clearer.

A. Throat black.

a. Back mottled black and yellow.

a¹. Head black all round, bordered by a narrow yellow collar round the neck *H. nigriceps*.

b¹. Head yellow, no black on the crown *H. spilonotus*.

b. Back greenish yellow, sometimes with traces of darker centres to the feathers.

a². Fore part of the crown to behind the level of the eye black, occiput and nape yellow *H. cabanisi*.

b². Only a narrow band of black across the forehead, sometimes interrupted in the middle; crown golden yellow.

a². Larger, wing 3·0 to 3·25 *H. velatus*.

b². Smaller, wing 2·5 to 3·0 *H. auricapillus*.

B. Throat not black.

a. Smaller, wing 3·35; entire head yellow *H. subaureus*.

b. Larger, wing 3·75; only the forehead yellow, rest of the head and face greenish yellow *H. jamesoni*.

Reichenow (Vög. Afr. iii. p. 29) puts together all the yellow Weaver birds included in the South African genera, *Hyphantornis* *Sitagra*, and *Sycobrotus*, and other genera from tropical Africa and South Asia, under one genus *Ploceus*; he recognises seventy-two African species, and arranges these in twelve subgenera separated by colour characters.

27. HYPHANTORNIS AURICAPILLUS (Swains.).

Reichenow (Vög. Afr. iii. p. 79) adopts the older name *auricapillus* of Swainson for this species. It is merely a smaller and brighter coloured form of *H. velatus*. Males in the non-breeding season appear to have a strong tinge of pinkish below, judging from examples sent to the South African Museum by Dr. Stoehr.

29. *HYPHANTORNIS JAMESONI* Sharpe.

This species is closely allied to *H. xanthops* from East Africa and Nyasaland; the birds obtained by Marshall (Ibis, 1900, p. 243) and Alexander (Ibis, 1899, p. 574) from Mashonaland and the Zambesi Valley are probably referable to this species and not to *H. xanthops*.

33. *SITAGRA CAPENSIS OLIVACEA*.

The oldest name for this species according to Reichenow (Vög. Afr. iii. p. 87) is *olivaceus* of Hahn. The bird is only subspecifically distinct from *S. capensis typicus*, and should therefore be known as *Sitagra capensis olivacea*.

34. *SYCOBROTUS GREGALIS* (Licht.).

Reichenow (Vög. Afr. iii. p. 32) separates the southern Black-backed Weaver from the form inhabiting Angola. He retains the earliest name *bicolor* for the latter race, while to our species he attaches Lichtenstein's name *gregalis*.

48A. *LAGONOSTICTA RHODOPAREIA* Heugl.

This species must be added to the South African fauna; it is an East African bird whose range extends from Bogosland and Mombasa to Nyasaland. There is, however, an undoubted example in the South African Museum obtained in October, 1892, on the Uremma River, near Beira. It resembles *L. jamesoni*, but is more richly coloured and has small white spots along the sides of the breast and flanks, which are absent in the other species.

49. *LAGONOSTICTA RENDALLI* Hart.

Shelley (B. Afr. iv. p. 260) separates under this name the Little Ruddy Waxbill of Nyasaland and Southern Africa from that of tropical and East Africa, which retains the older name *L. brunneiceps*.

51A. *LAGONOSTICTA NITIDULA* Hartl.

I was fortunate enough to obtain an example of this rare species (only before met with on Lake Tanganyika and on the Kuanza River, in Angola) on the banks of the Zambesi, a few miles above the Victoria Falls.

This species can be at once distinguished from others of the genus by the absence of the crimson upper tail coverts. It is olive-brown throughout, the eyebrow, sides of the head, throat, and fore-breast

washed with claret-red, with a few fine white spots on the breast, under-tail coverts ochre-brown. The specimen from the Victoria Falls is a young bird and just shows the red feathers commencing to appear on the throat; the iris is dark brown, the bill red with a black line along the culmen, the legs brown. It was shot on October 17th. Capt. Shelley has recently referred this bird to the genus *Hypargus* which he distinguishes from *Lagonosticta* by the absence of the peculiar shaped first long primary; he has also renamed it *H. harterti* as he also refers *Estrilda nitidula* (Hartl., Ibis, 1865, p. 269), a quite different species, to the same genus *Hypargus*.

52. ESTRILDA ASTRILDA (Linn.).

Reichenow (Vög. Afr. iii. p. 178) distinguishes some seven geographical subspecies of the widely distributed Rooibekje. Of these three are found within our limits, viz., *Estrilda astrilda typica* from South Africa generally, including Cape Colony, Natal, Orange River Colony, and the Transvaal; *Estrilda astrilda cavendishi*, darker in colour with leaden brown head, from Southern Mozambique; *Estrilda astrilda damarensis*, paler than the type from German South-West Africa.

55. ESTRILDA ANGOLENSIS (Linn.).

Reichenow (Vög. Afr. iii. p. 102) separates as a subspecies from *Estrilda angolensis typica*, a paler variety, *E. angolensis damarensis* from Damaraland and the Kalahari.

57. ESTRILDA CLARKEI (Shelley).

Shelley (Bull. B.O.C. xiii. p. 75, 1903) separates the Southern form of the Orange-breasted Waxbill from south of the Equator from that in other parts of Africa; the latter retains the old name, the former becomes *Estrilda clarkei*. This new species is distinguished by its paler yellow colour, only the crop being washed with orange.

63. PHILETERUS SOCIUS (Lath.).

Reichenow (Vög. Afr. iii. p. 242) places this bird among the true *Fringillidæ* close to *Passer*, as the first primary is absent. In the two examples I have been able to examine this is certainly the case as far as can be seen without injuring the specimens, but it must be remembered that traces of the first primary can be found in many of the so-called nine-quilled *Passeres*, and the distinction between the two families (*Fringillidæ* and *Ploceidæ*) is by no means a fundamental one.

64A. *AMADINA FASCIATA* (Gmel.).

The East African species, *Amadina fasciata*, often called the Cut-throat Weaver Finch by bird fanciers, must be added to the list of South African Birds.

It is easily distinguished by the transverse band of red on the throat and by the absence of red on the crown.

Dr. Stoehr, of the Geodetic Survey, has sent to the South African Museum a pair obtained at George's Ferry, near Zumbo on the Zambesi, on February 12, 1904, while this year I saw alive in an aviary at the house of Mr. Marshall Hole, the Civil Commissioner of Bulawayo, a pair which he assures me were caught in the immediate neighbourhood of that town.

Hitherto it does not appear to have been met with south of Dar-es-Salaam in German East Africa.

65. *QUELEA QUELEA* (Linn.).

Reichenow (Vög. Afr. i. p. 110) regards *Q. quelea* and *Q. russi* as identical. He terms this bird *Quelea sanguinirostris lathamii*, and considers it a subspecies of the West African typical form *Quelea sanguinirostris* or *Quelea quelea*.

66A. *QUELEA CARDINALIS* (Hartl.).

A pair of weavers undoubtedly referable to this species have recently been presented to the South African Museum by Dr. Stoehr, of the Geodetic Survey. They were obtained at Kanyani in the Zambesi valley near Zumbo. Previously the most southerly record was the shores of Lake Tanganyika.

67A. *PYROMELANA ORYX SUNDEVALLI* (Bp.).

Under this name the smaller form of the Red Bishop Bird may be distinguished; it differs from the typical subspecies only in its much smaller size—wing of a male 2·65, as compared with 3·0.

67B. *PYROMELANA FLAMMICEPS* (Swains.).

This widely distributed tropical species extends as far south as the Zambesi Valley, where it was obtained by Alexander (Ibis, 1899, p. 567). The South African Museum contains an example from the Zambesi Valley in the neighbourhood of Zumbo, procured by Dr. Stoehr, of the Geodetic Survey. It resembles *P. oryx*, but has a scarlet head and very much blacker wings.

70. PYROMELANA CAPENSIS APPROXIMANS (Cab.).

According to Reichenow (Vög. Afr. iii. p. 132) the oldest name for this subspecies is *Orynx approximans* Cab.; the bird should therefore be known as *P. capensis approximans*.

74A. COLIOPASSER MACRURUS (Gmel.).

This tropical Africa species was also met with by Alexander at Zumbo on the Zambesi in December (Ibis, 1899, p. 565). It is black with the back and lesser wing coverts yellow, the greater coverts and wings with brownish streaks; wing 3.0 to 3.25 inches.

83. PETRONIA PETRONELLA (Licht.).

Ivy (Ibis, 1901, p. 19) states that this bird lays three to four dull unspotted brown eggs, very unlike those of the common Sparrow.

According to Reichenow (Vög. Afr. iii. p. 244) the oldest name for this bird is *superciliaris* of Blyth.

84. PASSER MELANURUS (P. L. S. Müll.).

84A. PASSER MELANURUS DAMARENSIS (Reichw.).

Reichenow (Vög. Afr. iii. p. 233) uses the older name *melanurus* of P. L. S. Müller, dating from 1776, for this species, generally known as *Passer arcuatus* Gmel., which dates from 1788. The same author, on p. 234, further distinguishes a paler variety from Damara-land and Benguella under the name of *P. melanurus damarensis*.

84B. PASSER DOMESTICUS (Linn.).

I have recently examined an undoubted example of this species obtained in the neighbourhood of Pretoria, and now preserved in the Transvaal Museum there. Dr. Gunning, to whom I am indebted for the opportunity of so doing informs me that so far as he is aware the English Sparrow has never been introduced into the Transvaal, but Mr. C. Fuller, the Government Entomologist of Natal, in his Report for 1903-4 (p. 31), states that they have been introduced at Durban and have increased very rapidly in that neighbourhood since April, 1902, when they were first noticed.

86. PASSER GRISEUS (Vieill.).

Reichenow (Vög. Afr. iii. p. 230) adopts an older name, *griseus*, of Vieillot, dating from 1817 for this bird, in preference to *diffusus*, of Smith, dating from 1836.

89A. *SERINUS SHARPEI* Neum.

Reichenow (Vög Afr. iii. p. 266), distinguishes the East African form of *S. sulphuratus* under this name; it differs from the type species in its smaller size, its rather yellower rump, and the much smaller amount of green on the lower surface. According to Reichenow, this species extends as far south as the Zambesi Valley, whence, at Tette, an example was obtained by Kirk. A specimen in the South African Museum from Shella, in the Mossamedes Province of Angola, appears to be referable to this species.

90A. *SERINUS MARSHALLI* Shelley.

Shelley (B. Afr. iii. p. 200) distinguishes under this new name the northern race of *S. flaviventris*, which replaces the typical form between the Orange and Zambesi Rivers. Marshall's Canary, as it may be called, also inhabits the Island of St. Helena. An examination of the specimens in the South African Museum corroborates the differences pointed out by Shelley between the two races. The male of *S. marshalli* resembles *S. flaviventris*, but the bill is slightly larger and the upper parts are yellower and brighter; wing 2.75 to 2.85 as compared with 3.0 to 3.12 in *S. flaviventris*. The female of *S. marshalli*, on the other hand, is much paler than that of *S. flaviventris*, and the under parts are much less strongly streaked.

91 and 92. *ANOMALOSPIZA IMBERBIS* (Cab.).

Tristram's *Crithagra rendalli*, the types of which were obtained near Barberton by Dr. Percy Rendall, and which are now preserved in the Liverpool Museum, has always been somewhat of a puzzle; recently Captain Shelley (Bull. B. O. C. xii. p. 30, 1901) has stated that it is really a Weaver bird, and should be placed in the sub-family *Viduinæ*, near the genus *Quelea*; he further proposes a new genus, *Anomalospiza*, for its reception, characterised by a sharp angle on the cutting edge of the lower mandible. Reichenow (Vög. Afr. iii. p. 276) accepts Shelley's genus, but keeps it close to *Serinus* and does not recognise its *Ploceine* features. He further identifies the bird with *Crithagra imberbis* of Cabanis, so that the name, according to Reichenow, stands as *Anomalospiza imberbis* (Cab.). If Reichenow's identifications are correct the species ranges from the Transvaal to German East Africa. It is figured on Plate xxxi. of the recently issued fourth volume of Shelley's Birds of Africa.

96. *SERINUS LEUCOPTERUS* (Sharpe).

There is an example of this apparently rare species in the South African Museum—a female obtained on September 5, 1884, at Ceres Road, about eighty miles from Cape Town, by a Museum collector, Mr. T. D. Butler. It differs from the description given of the type in having no yellow tinge on the forehead, and is somewhat more black on the chin. The wing measures 2·8, and in this agrees with the description given by Shelley (B. Afr. iii. p. 224), but not with that given by Stark. Apart from the type in the British Museum and the example above mentioned no other specimen appears to be known in collections.

99. *ALARIO ALARIO* (Linn.).

Sharpe (Bull. B. O. C. xcix. p. 80, 1903) has described a new species, *A. leucolæma*, from Great Namaqualand, the type of which is in the British Museum. It differs from the older known species in having the sides of the forehead, a broad eyebrow, a patch on the cheek, chin, and throat, white. Captain Shelley (Birds Afr. iii. p. 214) considers the new species merely the winter dress of the ordinary Mountain Canary. Reichenow, who has examined a somewhat similar specimen from Kaffraria, believes that it is only a sport, or perhaps a young bird. Sharpe, in some further remarks (Ibis, 1904, p. 353) on another example from Deelfontein does not consider any of the explanations hitherto advanced satisfactory, and we must, perhaps, await further observations before coming to a definite conclusion on the matter.

101A. *FRINGILLA CŒLEBS* (Linn.).

The Chaffinch was introduced by Mr. Rhodes into the Cape Peninsula at the same time as the Starling, but though occasionally seen is by no means abundant.

103. *FRINGILLARIA CAPENSIS* (Linn.).

Shelley (B. Afr. iii. p. 158) distinguishes the Cape Buntings from Natal and the Transvaal under the name of *F. reidi*; these differ in having the paler parts of the head and the under parts very much darker and of a sandy-yellow colour. Sharpe (Ibis, 1904, p. 354) finds that the Cape Buntings obtained by Seimund and Grant at Deelfontein are intermediate between those of the west and those of north and east, and names this form *F. media*. It will probably be most convenient to consider these forms as merely subspecies, and we shall then have—

Fringillaria capensis typica. Cape div. and Saldanha Bay (S. A. Mus.), Tjotis in Namaqualand (B. Mus.).

Fringillaria capensis media. Hanover (S. A. Mus.), Deelfontein (Type in Bt. Mus.), Mossel Bay (Shelley).

Fringillaria capensis reidi. Natal, Zululand, and Transvaal; Campbell, in Griqualand West (S.A. Mus.).

108. PYRRHULAUDA SMITHI Bp.

Shelley unites this species with *P. leucotis* (Stanl.), from Abyssinia, under the latter and older name; Reichenow (Vög. Afr. iii. p. 365) keeps our southern species separate as a subspecies under the name of *P. leucotis smithi*.

112A. BOTHA DIFFICILIS Shelley.

Shelley (B. Afr. iii. p. 105, pl. 22, fig. 1) describes a new genus and species of lark under this name from the Orange River Colony. It is a small bird, with a conical somewhat pinkish bill, and a tail with white edges. The following four characters readily distinguish it according to Shelley: (1) bill conical; (2) bastard primary large; (3) hind claw long and nearly straight; (4) pattern of tail.

113. GALERITA MODESTA Heugl.

The specimen alluded to in Stark (vol. i. p. 204) as having been procured at Clanwilliam has been examined by Captain Shelley. He informs me that he believes it to be merely a young bird of *Callendula crassirostris*. *Galerita modesta* must, therefore, be removed from the South African list.

125A and B. SPIZOCORYS STARKI ET SCLATERI Shelley.

Shelley (B. Afr. iii. p. 135, pl. 22, fig. 2, p. 136, pl. 22, fig. 3) describes these two new species, the former from Damaraland, Great Namaqualand, and the Transvaal, the latter from Great Namaqualand only. *S. starki* is distinguished from *S. conirostris*, with which it has hitherto been confused, by its paler colour, its larger bill, and by the presence of a distinct crest. *S. sclateri* has a longer and less curved bill, no crest, and the white on the tail is confined to the outer webs of the three outer tail feathers.

127. TEPHROCORYS SPLENIATA (Strickl.).

128. TEPHROCORYS ANDERSSONI (Tristr.).

Shelley (B. Afr. iii. p. 123) is unable to distinguish these two red-capped larks from the better known and more widely spread *T. cinerea*.

131. *CERTHILAUDA SEMITORQUATA* Smith.

Shelley and Reichenow both place this species in the genus *Certhilauda*, a position to which its long bill undoubtedly entitles it.

132. *MIRAFRA NIVOSA* (Swains.).

The bill in this species is not sufficiently elongated to entitle it to a position in the genus *Certhilauda*; it should be, following Shelley and Reichenow, relegated to *Mirafra*.

134. *CERTHILAUDA ALBOFASCIATA* Lafr.

The description of *Anthus rufulus*, given by Vieillot, does not apply to this bird, but to the Indian Pipit. The oldest name, therefore, is *Certhilauda albofasciata* of Lafresne, published in 1836.

Reichenow (Vög. Afr. iii. p. 354) distinguishes a much paler form of this species from German South-west Africa, under the name of *C. albofasciata arenaria*.

142. *ANTHUS BRACHYURUS* Sund.142A. *ANTHUS CAFFER* Sund.

Shelley (B. Afr. ii. p. 301) separates the Short-tailed Pipit of the Transvaal and Swaziland from that of Natal and Zululand, and identifies the former with *Anthus calthropæ* of Layard. This latter was described from a caged bird in Mr. Layard's possession, which, he states, came from Swartland, the old name for the Malmesbury district, near Cape Town, and not from Swaziland, as stated by Shelley. As the type of *A. calthropæ* is no longer to be found, it is difficult, if not impossible, to settle what species it is identical with. Reichenow (Vög. Afr. iii. p. 313) identifies this same bird (*i.e.*, the Short-tailed Pipit of the Transvaal) with *Anthus caffer*, of Sundevall, the type of which (now in the Berlin Museum) he has examined; the type locality is the Upper Limpopo, in what is now the Rustenburg district of the Transvaal. *Anthus caffer* closely resembles *A. brachyurus*, but is somewhat larger; it is lighter coloured above, and has narrower black median streaks on the feathers; the wing measures about 2·75, as against 2·5 to 2·6.

143A. *ANTHUS VAALENSIS* Shelley.

Captain Shelley (B. Afr. ii. p. 311) describes a new Pipit, *A. vaalensis*, which is very similar in size, form, and colouring to

A. nicholsoni, but differs in having the crown and back quite uniform, with no darker centres to the feathers. The species is founded on specimens obtained in Northern Natal, near Newcastle, and the Ingagane River. Two Pipits from near Kimberley, and from the Molopo River, in the Mafeking district, respectively, preserved in the South African Museum, seem to be referable to this new species. Reichenow does not recognise this new species; he considers it identical with *A. leucophrys* (i.e., *A. pyrrhonotus*).

144. *ANTHUS PYRRHONOTUS* (Vieill.).

Reichenow (Vög. Afr. iii. p. 316) substitutes the name *leucophrys*, also of Vieillot for this species.

147. *MOTACILLA VIDUA* Sundev.

147A. *MOTACILLA VAILLANTI* Cab.

Shelley finds (B. Afr. ii. p. 266) that there are two distinct species confounded under the first of these two names, the widely-spread species for which he retains Sundevall's name, and another species distinguished by the possession of black or dusky grey instead of white flanks. The differences between the two species are clearly shown by a coloured plate. The second species, which he names *M. nigricotis*, is found in the basins of the Orange and Limpopo Rivers. Reichenow (Vög. Afr. iii. p. 299) follows Shelley, but refers the black-flanked form to *Motacilla vaillanti* of Cabanis. This name is doubtless founded on Levaillant's plate (Ois. d'Afr. iv. pl. 178) which is drawn from the same form, while the old author's description states that the flanks are white, and is doubtless referable to *M. vidua*.

In the South African Museum there are three examples from Upington, on the Orange River, obtained by Bradshaw, and one from Colesberg, also near the Orange River, collected by Ortlepp. These are undoubtedly *M. vaillanti*. A pair from Port St. John's in Pondoland, on the other hand, are undoubted examples of *M. vidua*. Recently I secured a pair of Pied Wagtails on the Upper Zambesi, above the Victoria Falls. As their flanks are dark grey, these appear to me to be intermediate forms, and it will perhaps be best to consider *M. vaillanti* as only a strongly marked subspecies.

158A. *CINNYRIS MICRORHYNCHUS* Shelley.

This bird (Shelley, B. Afr. ii. p. 55), a smaller edition of *C. mariquensis*, with a shorter bill and much less coppery gloss,

is found in East Africa, and extends along the coast as far as Inhambane, in Portuguese East Africa. The South African Museum contains examples from Inhambane collected by Mr. H. F. Francis in December, and from the Pungwe River by Mr. T. D. Butler in October, while Mr. Boyd Alexander met with the species at Zumbo on the Zambesi. It must, therefore, be undoubtedly included in the list of South African Birds.

158B. *CINNYRIS SHELLEYI* Alexander.

This little Sunbird was discovered and described by Captain Boyd Alexander (*Ibis*, 1899, p. 556, pl. 11) on the Zambesi, about sixty miles below its junction with the Kafue River; it is allied to *C. mariquensis*, from which it differs in having the golden shade confined to the back of the head, neck, and mantle, while the sides of the head and throat are plain metallic green; the pectoral band is a bright scarlet and not deep red.

158C. *CINNYRIS CUPREUS* (Shaw).

The Copper-coloured Sunbird (Shelley, *B. Afr.* ii. p. 36), a common species in tropical Africa, has also been met with on the Zambesi near its junction with the Shiré River by Alexander; it somewhat resembles *C. mariquensis*, but is without the red pectoral band.

159A. *CINNYRIS VENUSTUS* (Shaw).

This is another tropical African species (Shelley, *B. Afr.* ii. p. 62) from Senegambia and other parts of West Africa, the range of which extends southwards to the Zambesi, where it was met with at Zumbo by Boyd Alexander. It can be recognised by its metallic head and back, its pale buff breast and under-parts, and by its yellow and red pectoral tufts.

173. *ZOSTEROPS ANDERSSONI* Shelley.

The account given of the distribution of this species by Stark is hardly correct; it ranges from Benguela and Ovampoland to Mozambique and Mashonaland; it is common along the Zambesi, and has been procured by Mr. Guy Marshall, near Salisbury, throughout the year.

175. *ZOSTEROPS PALLIDA*.

Sharpe (*Ibis*, 1904, p. 345) follows Finsch (*Tierreich* Lief. 15, p. 12, 1901) in rejecting Swainson's name *Z. pallida* for this species,

and substitutes the later *Z. sundevalli* of Hartlaub. On reference to Swainson's original description it does not appear to be anything but thoroughly applicable to the Pale White-eye, and it would certainly have been a species which Burchell, who collected Swainson's types, would have been likely to meet with.

177. *PARUS AFER* Gm.

177A. *PARUS CINERASCENS* Vieill.

177B. *PARUS CINERASCENS PARVIROSTRIS* Shelley.

Mr. Sharpe (Ibis, 1904, p. 342) states that there are two distinct Tits which have been hitherto confounded under the name of *Parus afer*. The distinctness of these two forms is clearly pointed out by Levaillant, who figures both of them. In the neighbourhood of Cape Town and in the south-western part of the Colony is to be found Levaillant's "*Mésange brune*," a bird with a distinctly brown back and pale fawn under-parts. It is described on page 167, and figured on plate 139, fig. 2 (*err. pro* fig. 1) of the 3rd vol. of the *Oiseau d'Afrique*, and is identical with the Black-breasted Titmouse of Latham, on which Gmelin founded his *Parus afer*. The British Museum contains examples of this species from near Cape Town, and a good series from Deelfontein in the Karoo, while in the South African Museum are to be found specimens from Malmesbury, Gouda (*i.e.*, Porterville Road Station), and Hanover.

The Grey Tit was first discovered by Levaillant, and described by him (*Ois. d'Afr.* iii. p. 164, pl. 138, fig. 1) as the *Mésange Grisette* (not, as stated by Sharpe, *Mésange gris à joue blanche*, which is the Indian *Parus cinereus*). It is a blue-grey bird above and below, with the white edges to the wing and tail quills much more strongly marked, and is found from the Orange River northwards to Nyasaland, and is well represented in the British Museum. There is no record, so far as I am aware, of its occurrence in the eastern half of the Colony or in Natal, and I suspect that Levaillant really obtained his bird on the Orange River during his northern journey, and not, as he states, at Camdeboo, which is now known as the Somerset East district of Cape Colony. The correct name for the Grey Tit is *P. cinerescens* of Vieillot, founded on Levaillant's description. Shelley (*B. Afr.* ii. p. 243) proposes to call a geographical race of this latter species from Mashonaland and Nyasaland *Parus parvirostris*; it is distinguished by its much smaller bill, though resembling the typical form in plumage.

178A. *PARUS RUFIVENTRIS* Boc.

There is an example of this species (Shelley B. Afr. ii. p. 238) in the South African Museum, a male, obtained by the late Mr. A. W. Eriksson, at Ochimbora in Ovampoland, on November 4, 1890. It must, therefore, be included in the South African list. It closely resembles *P. pallidiventris*, but is a darker blue-slate above and a richer cinnamon below. The range of the species extends northwards through Benguela to the Congo.

181. *ÆGITHALUS MINUTUS* (Shaw).181A. *ÆGITHALUS SMITHI* Jard. and Selby.

Mr. Sharpe (Bull. B. O. C. xiii. p. 60, and Ibis, 1904, p. 343), states that there are two species of "Cappoc Vogel" which have hitherto been confused by authors under the name of *Æ. capensis*. This name was founded by Gmelin on Sonnerat's "Petite Mésange du Cap de Bonne Esperance," the figure of which is entirely unlike the Cape "Cappoc Vogel"; it perhaps represents *Stenostira scita*, but it is quite unrecognisable, and should be dropped.

The earliest name for the Cape Cappoc is *Sylvia minuta* Shaw,* founded on Levaillant's description and figure of the "Figuier Becque-Fleur" (Ois. d'Afr. iii. pl. 134, figs. 1, 2), which is stated to have come from the Oliphant River district, now the Clanwilliam and Van Rhyns Dorp divisions of Cape Colony.

Examples of this bird from Deelfontein, Port Elizabeth, and King William's Town are preserved in the British Museum, and from the Cape division, Berg River, and Hanover, in the South African Museum, and it is apparently confined to Cape Colony south of the Orange River.

The Capoc Vogel of the Transvaal, Mashonaland, and Damaraland is stated by Sharpe to be brighter in colour than that of the Colony, and to this form he assigns the name *Ægithalus smithi*, of Jardine and Selby,† the description of which is founded on a specimen obtained by Sir Andrew Smith.

Both these species are figured by Sharpe (Ibis, 1904, pl. viii., figs. 1, 2), and the following diagnosis is given:—

- a. Breast darker, and dull ochreous; upper surface dark ashy, dark olivaceous on the rump and upper tail coverts; on the crown a slight indication of dusky basis to the feathers *Æ. minutus*.

* Shaw and Nodder, Nat. Misc. xxiii. pl. 997 (1812).

† Illustr. Orn. pl. 113, fig. 1 (1831).

- b. Breast light sulphur-yellow, slightly darkening in older birds, but always distinctly yellow; light grey on the head, verging gradually into light olive-greenish, becoming more sulphur-yellow on the rump and upper tail coverts *E. smithi*.

186A. LANIUS LUEBBERTI Rehw.

Reichenow (Vög. Afr. ii. p. 619) describes a new Shrike from Brakwater in Damaraland as follows :—

“ Above throughout pale grey, a black band from the base of the bill through the eye and ear coverts, above which is a plainly marked white eyebrow; wing coverts and quills black, primaries white at the base, inner primaries and secondaries with narrow white tips; below white, breast and abdomen tinged with salmon; under-wing coverts white, those of the primaries grey, middle tail feathers black with narrow white tips, others with base and tip white, outer pair pure white; bill and feet black; length, 8·25; wing, 4·5; tail, 4·0.”

It appears to be closely related to *L. minor*.

195A. DRYOSCOPUS CUBLA HAMATUS Hartl.

Reichenow (Vög. Afr. ii. p. 594) distinguishes the tropical form of the Puff-back Shrike under the above name. The males, apparently, are identical, but the female can be distinguished by the greyer tinge of rump, and is without any trace of the olive-green shade present in the typical form. According to Reichenow this form occurs from East Africa to Angola and North Damaraland.

I am not able to sustain or otherwise this subspecies with the specimens at my disposal.

196. DRYOSCOPUS RUFIVENTRIS (Shaw).

This species should be referred to under Shaw's name as above, which was founded on “le Boubou” of Levaillant.

196A. DRYOSCOPUS RUFIVENTRIS HYBRIDUS Neum.

Reichenow (Vög. Afr. ii. p. 583) distinguishes a northern subspecies of the Greater Puff-back Shrike by the pale ochreous colour of the whole of the under-parts from the crop downwards.

It takes the place of the typical subspecies from the Transvaal northwards to the Zambesi and beyond to German East Africa.

204. LANIARIUS MARAISI Sc. f.

Dr. Reichenow believes that this species is founded on a young bird of *L. rubiginosus*; in my original description I stated that I

was also inclined to this belief, but was only convinced of the distinctness of the species by the fact that Mr. Marais assured me that the greater number of the specimens obtained by him were adult, with sexual organs enlarged and obviously in use.

205. *LANIARIUS SULFUREIPECTUS* (Less.).

Neumann (J. f. O. 1899, p. 395) has divided this well-known and widely spread species into four races; the material for an examination of the validity of these races does not exist in the South African Museum, but neither Sharpe (Ibis, 1901, p. 43) nor Hartert (Nov. Zool. ix. p. 624) seems inclined to agree with his conclusions in their entirety. Should the South African race be considered distinct, it may be known as *L. sulfureipectus similis* Smith.

225. *CHLOROCICHLA INSULARIS* (Hartl.).

Reichenow (Vög. Afr. iii. p. 408) substitutes the above name for *oleaginus* of Peters. The species is found throughout East Africa, from Witu to Inhambane.

228A. *CRINIGER MILANJENSIS* (Shell.).

An undoubted example of this species, first described by Shelley (Ibis, 1894, p. 9, pl. i. fig. 1), from the Milanji hills in Nyasaland from a specimen procured by Mr. Alexander Whyte, was sent to me some little time back by Mr. G. A. K. Marshall. He procured it in the Chirinda forest, in the Melssetter district of Southern Rhodesia, on the borders of Portuguese territory, in the month of December. It is very like the other green bulbuls, such as *Chlorocichla flaviventris*, but can be at once distinguished by its white-streaked ear coverts.

241. *CRYPTILLAS VICTORINI* (Sund.).

Oberholser (P. Acad. Philad., 1899, p. 211) has pointed out that the generic term *Phlexis* of Hartlaub is preoccupied in Coleoptera by *Phlexys* of Erichson. He proposes to substitute *Cryptillas* as above.

242. *EURYPTILA SUBCINNAMOMEA* (Smith).

Sharpe (Ibis, 1904, p. 338) gives particulars of the nesting habits of this bird as observed by Messrs. Seimund and Grant in the neighbourhood of Deelfontein. The nest was found, on December 8th, in the grass at the foot of a big rock on a kopje and was composed chiefly of spiders' web; the eggs, three in number, were

pale bluish white with numerous dots and small spots of lilac generally distributed. They measured $\cdot 75 \times \cdot 55$.

246A. *BRADYPTERUS CUNENENSIS* (Hartert).

Hartert (Bull. B. O. C. xiii. p. 62, 1893) describes a new Reed Warbler from the Cunene River obtained by Mr. A. W. Eriksson on April 3, 1880. It is apparently allied to *B. babœcula* (*Calamocichla gracilirostris* apud Hartert), but is greyish instead of rufous-brown above and is slightly larger.

248A. *EREMOMELA FLAVIVENTRIS DAMARENSIS* (Sharpe).

Sharpe (Ibis, 1904, p. 339) considers that the Damaraland form of *E. flaviventris* is worthy of separation from the typical race owing to its paler colour. An examination of the series in the South African Museum hardly convinces me of the distinctness of the two races; moreover, Burchell's type of the typical species came from Griquatown and would probably be referable to the Damaraland race, or be at any rate intermediate.

270A. *SPILOPTILA MALOPENSIS* (Sharpe).

Sharpe (Bull. B. O. C. xiii. p. 80) distinguishes under this name the Rufous-eared Wren Warbler from the Molopo River in Bechuanaland. It is paler and more fulvescent above, having scarcely any grey on the crown and neck, while the rufous eyebrow and face is light vinous cinnamon; the sides of the body, flanks, and under-tail coverts are light sandy buff, and not streaked as in the typical form.

An old skin in the South African Museum from Kuruman is apparently referable to this species, which extends westwards to Great Namaqualand, while examples from the Transvaal are somewhat intermediate

281A. *CISTICOLA CHINIANA* (Smith).

281B. *CISTICOLA RUFILATA* (Hartl.).

Sharpe (Hand-list Birds, iv. p. 199) again recognises these two Grass Warblers as distinct from the common Grey-backed form of the Colony.

The South African Museum contains examples of the first-named form from Durban, the Zambesi Valley, and from Nyasaland. It is larger than *C. subruficapilla*, and has no trace of spots on the breast, while the head is uniform rufous and not streaked.

There are two examples of *C. rufilata* also in the same collection

from Ovaquenyama and Oehimbora in Ovampoland, where they were obtained by Eriksson. These can be at once distinguished by the general rufous tinge on the back as well as the crown.

298A. *TURDUS LIBONIANUS TROPICALIS* (Ptrs.).

298B. *TURDUS LIBONIANUS VERREAUXI* (Boc.).

Hellmayr (Journ. Ornith., 1902, p. 219) distinguishes these two subspecies of the Kurrichaine Thrush from Inhambane and the Lower Zambesi to Tanga in East Africa, and from Ombongo and Angola respectively. The former has darker brown upper parts and a more orange shade over the breast than the type; the latter is greyer above and has the greater part of the breast brownish grey, while the white portion of the lower surface is more widely spread and the orange portion more restricted.

307. *SAXICOLA MONTICOLA* (Vieill.).

A further discussion of the Mountain Chat, with its very puzzling series of plumage changes, is given by Hartlaub (Notes Leyd. Mus xxii. p. 153) and Sharpe (Ibis, 1904, p. 327), but no definite conclusion is reached by either author, except that the latter is inclined to consider the Damaraland race as a distinct species under the name *Saxicola leucomelana*, because of its creamy-white or pure white crown.

312. *SAXICOLA LAYARDI* Sharpe.

As has been pointed out by Sharpe (Ibis, 1904, p. 325), the web of the second primary of this Chat is slightly emarginated at the tip, so that the species should occupy a position somewhat intermediate between the genera *Saxicola* and *Emarginata*.

313. *SAXICOLA FAMILIARIS* Stephens.

313A. *SAXICOLA FAMILIARIS GALTONI* (Strickl.).

313B. *SAXICOLA FAMILIARIS HELLMAYRI* Reichw.

Reichenow (Orn. Monatsb. x. pp. 77, 78, 1902) recognises two geographical races of the Familiar Chat from Damaraland and the Transvaal respectively. The former, which he names *S. luebberti*, but which, if distinct, should be called *S. galtoni*, is a paler form of the typical race, and has a very broad black band at the end of the tail; the latter, *S. familiaris hellmayri*, has the black band on the tail very much narrowed and broken up, and even absent altogether on some of the feathers; the general colour of the tail, too, is a lighter chestnut.

316. EMARGINATA CINEREA (Vieill.).

316A EMARGINATA SCHLEGELII (Wahl.).

Sharpe (Ibis, 1904, p. 325) distinguishes a smaller form of the Grey Chat under the latter name; it is light brownish grey with the throat and breast delicate isabelline, and is confined to Damara-land. *E. cinerea* is a larger bird, ashy grey in colour, with the throat and breast light ashy grey; it is founded on the "Tractrac" of Levillant, and confined to Great Namaqualand.

338A. BRADYORNIS GRISEA Reichw.

Sharpe (Ibis, 1900, p. 112) records this East African species from Mapicuti, near Beira, and, somewhat doubtfully, from the Ivuna River in Zululand. It is closely allied to *B. mariquensis*, but paler and greyer in general colour, the crown is always clearly streaked with black, and the under-wing coverts are isabelline grey not white. Wing about 3.25.

344. CHLOROPETA ICTERINA Sundev.

Sharpe (Bull. B. O. C. xii. p. 35, 1901) has examined the type of this species in the Stockholm Museum, and finds that it is merely the young of *C. natalensis*.

349A. PACHYPRORA FRATRUM Shelley.

This species was accidentally omitted from the second volume of the Birds of South Africa. It was described by Shelley (Ibis, 1900, p. 522) from two examples procured by Messrs. Woodward at St. Lucia Bay, in Zululand. The bird was grey above with a black band on either side of the head running through the eye, over which is a narrow white eyebrow, below white with a crop band of chestnut. It was stated by the collectors to be a male, but analogy would lead us to believe it was really a female.

353A. TROCHOCERCUS ALBONOTATUS Sharpe.

An undoubted example of this species, procured by Mr. G. A. K. Marshall in the Chirinde forest in December, 1901, at an elevation of 4,500 feet on the borders of the Melsetter district of Rhodesia and of Portuguese East Africa, was presented to the South African Museum by the collector. It is the first record of the occurrence of this East African species south of the Zambesi.

T. albonotatus can be at once distinguished from *T. cyanomelas*, the other South African species by the absence of the white spots on

the wing coverts and of the white inner secondaries, and by the presence of white tips to the outer tail feathers. It is figured on plate vii. fig. 1 of the Ibis for 1892.

354A. TERPSIPHONE PLUMBEICEPS Reichw.

Reichenow (Vög. Afr. ii. p. 510) maintains that the Paradise Flycatcher of Ovampoland, Angola, the Zambesi Valley, and Nyasaland is distinct from the typical South African form. An examination of a pair in the South African Museum from Ochimbora in Ovampoland obtained by Mr. Eriksson confirms this. The chin and throat are slaty grey like the rest of the under-parts, and are without metallic gloss; while the gloss on the crown, though present, is much weaker and less widely spread. The female of this species can also be distinguished from that of *T. perspicillata* by its much paler and less metallic crown.

381. PITTA LONGIPENNIS Reichw.

Reichenow (Vög. Afr. ii. p. 390) points out that the Pitta from the Zambesi obtained by Alexander is identical with a species (*P. longipennis*) described by him from Langenburg in German Nyasaland, and differs from the true *P. angolensis*, which is confined to West Africa from Sierra Leone to Angola. Sharpe (Ibis, 1903, p. 93, pl. iv.) also points out the differences between the three African species, and gives a figure of our present one from specimens obtained by Mr. J. folliott Darling near Salisbury.

423. COLIUS STRIATUS Gmel.

423A. COLIUS STRIATUS MINOR Cab.

Reichenow (Vög. Afr. ii. p. 203) distinguishes as a subspecies the Speckled Mousebird of South-east Africa from Nyasaland to Natal under the above name *minor* of Cabanis.

The subspecies is of smaller size (wing about 3·5 against 3·75) and has a darker, almost black, chin and throat. An example in the South African Museum from Pinetown in Natal confirms these characters, though they do not seem of any fundamental importance.

424. COLIUS CAPENSIS Gmel.

424A. COLIUS CAPENSIS DAMARENSIS Reichw.

Reichenow (Vög. Afr. ii. p. 208) also distinguishes as a subspecies the Damaraland form of the White-backed Mousebird, by its very much paler colouration.

427A. BYCANISTES CRISTATUS (Rüpp.).

This East African species extends southwards to the Zambesi, where it was got by Kirk. It is easily distinguished from *B. buccinator* by its white lower back and by the black of the under-parts reaching to the legs, which are clothed in front with black and behind with white feathers. The secondaries, too, are not tipped with white.

440. DENDROPICUS CARDINALIS (Gmel.).

440A. DENDROPICUS CARDINALIS HARTLAUBI Malh.

Reichenow (Vög. Afr. ii. p. 193) separates the Cardinal Woodpecker from the Zambesi Valley and northwards under the latter of the two names; he states that it differs from the typical form in its somewhat smaller size, its stronger olive tone above, and the weaker and less conspicuous black streaks on the lower surface. Two examples from the Zambesi Valley are preserved in the South African Museum.

485. PŒOCEPHALUS ROBUSTUS ANGOLENSIS Reichw.

Reichenow (Vög. Afr.) regards the Brown-necked Parrot merely as a subspecies of Levaillant's Parrot (*P. robustus*) and has given it a new name, reserving *fuscicollis* of Kuhl for the West African subspecies.

556. GYPS RUEPELLI—RÜPPELL'S VULTURE.

A Vulture which appears to be undoubtedly referable to this species was recently obtained at Livingstone, on the Zambesi, a few miles above the Victoria Falls by the collector of the South African Museum. I think there can be little doubt that the Vultures recorded by Ayres from Potchefstroom, and probably from Natal and Mashonaland, were really referable to the White-backed species next on this list.

557. PSEUDOGYPS AFRICANUS (Salv.).

The South African Museum has recently received through the kindness of Mr. Austin Roberts a fine example of the White-backed Vulture found at Potchefstroom, an allusion to which will be found in a footnote on p. 388 of the third volume of the Fauna. The specimen agrees very well with the descriptions given by Sharpe and others, and is markedly distinct from *Gyps kolbii* and

G. rueppelli, as it has a pure white lower back and rump. At the same time it undoubtedly possesses fourteen tail feathers, so that it cannot be assigned to the genus *Pseudogyps* as defined by Sharpe.

Whether a mistake has been made in regard to the number of tail feathers in this species or whether the Potchefstroom White-backed Vulture should be referred to another species of the genus *Gyps* must remain for the present uncertain.



X.—*The Moths of South Africa* (Part III.).—By SIR G. F.
HAMPSON, Bart., B.A., F.Z.S., &c.

THE present instalment of the classification of the Moths of South Africa deals with the families *Pterothysanidæ*, *Lymantriadæ*, and *Hyppsidæ*, and concludes the Noctuid group of families having vein 5 of the forewing more or less approximated to vein 4. It also includes a supplementary list of species from South Africa belonging to the families dealt with in the first two papers of the series, which were published in the *Annals of the South African Museum*, Vol. II., pp. 33-66, and pp. 255-446.

An (*) indicates that the species is not in the British Museum.

FAMILY PTEROTHYSANIDÆ.

GENUS PTEROCEROTA, nov.

Proboscis absent; palpi very short not reaching as far as frons; antennæ of male with very long waved branches to extremity; mid and hind tibiæ with terminal pairs of spurs. Forewing with the apex rounded; the cell short, rounded at extremity the upper discocellular being oblique; vein 3 from well before angle of cell; 5 from above angle; 6 from well below upper angle; 7, 8, 9, 11 stalked, 10 absent, 11 very short and becoming coincident with 12. Hindwing with the frenulum absent; the cell short, rounded at extremity, the upper discocellular being oblique; vein 3 from well before angle of cell; 5 from well above angle; 6, 7 stalked; 8 connected with the cell by an oblique bar near base.

Allied to *Hibrildes*, Druce.

PTEROCEROTA VIRGINEA, n. sp.

♂. Pure white; frons pale yellow; antennæ brown; fore coxæ yellowish, the tarsi brown. Wings semidiaphanous with indistinct hyaline line just beyond middle highly excurved beyond cell of both wings and two curved subterminal lines.

Hab. Natal (Marshall). *Exp.* 62 mill. Type in B.M.

FAMILY LYMANTRIADÆ.

Key to the Genera.

- A. Forewing with vein 9 from 10 anastomosing with 8 to form the areole.
 - a. Hind tibiæ with one pair of spurs.
 - a¹. Hindwing with vein 5 from below angle of discocellulars; 6, 7 from angle of cell.
 - a². Forewing with the areole very long, veins 8, 9 from its extremity *Ogoa*.
 - b². Forewing with the areole shorter, veins 8, 9 stalked from it.
 - a³. Hindwing with the cell closed *Olapa*.
 - b³. Hindwing with the cell open, a veinlet in cell *Bracharoa*.
 - b¹. Hindwing with vein 5 from angle of discocellulars, 7 from before upper angle *Cinola*.
 - b. Hind tibiæ with two pairs of spurs.
 - a¹. Frons clothed with long woolly hair *Creaga*.
 - b¹. Frons not clothed with long woolly hair.
 - a². Forewing with the areole long and narrow *Redoa*.
 - b². Forewing with the areole short and broad.
 - a³. Forewing short and broad *Baziza*.
 - b³. Forewing longer.
 - a⁴. Forewing rather narrow, the termen obliquely curved.
 - a⁵. Forewing with the costa highly arched and the apex produced *Psalis*.
 - b⁵. Forewing with the costa slightly arched, the apex not produced *Lælia*.
 - b⁴. Forewing broader, the termen more erect *Dasychira*.
 - B. Forewing with vein 10 from cell, or from 11, then anastomosing with 8, 9 to form the areole *Lacipa*.
 - C. Forewing with veins 7, 8, 9, 10 stalked or 7 from cell, or 9 absent.
 - a. Hind tibiæ with one pair of spurs.
 - a¹. Hindwing with vein 3 absent *Micraroa*.
 - b¹. Hindwing with vein 3 present *Aclonophlebia*.
 - b. Hind tibiæ with two pairs of spurs.
 - a¹. Hindwing with veins 3, 4 stalked or from a point, 5 separate.
 - a². Forewing with the apex produced, the termen obliquely curved *Euproctis*.
 - b². Forewing short and broad, the termen more erect.
 - a³. Forewing with vein 10 from 8, 9, beyond 7.
 - a⁴. Abdomen without dorsal crests *Aroa*.
 - b⁴. Abdomen with dorsal crests *Homochira*.
 - b³. Forewing with vein 10 from 8, 9 before 7 *Lymantria*.
 - b¹. Hindwing with veins 4, 5 from a point, 3 separate *Cymaroa*.

D. Forewing with veins 7, 8, 9 stalked, 10 from cell.

- a. Fore and mid femora and tibiæ tufted with long thick hair ;
antennæ with large tuft from basal joint *Naroma*.
- b. Fore and mid femora and tibiæ slightly fringed with hair ;
antennæ with slight tuft from basal joint *Pteredoa*.

GENUS OGOA.

Type.

Ogoa, Wlk. vii. 1763 (1856) *simplex*

OGOA SIMPLEX, Wlk. vii. 1764 (1856).

Hab. **British East Africa**, Kikuyu, Taru ; **Natal**, Durban (Gueinzius, Millar). *Exp.* 58-76 mill.

GENUS OLAPA.

Type.

Olapa, Wlk. iv. 823 (1855) *flabellaria*.
Antiphella, Wlk. vii. 1743 (1856) *flabellaria*.

A. Forewing with the veins dark.

- a. Forewing yellowish white *nuda*.
- b. Forewing fulvous yellow *furva*.

B. Forewing with the veins concolorous.

- a. Forewing with the costal edge concolorous *flabellaria*.
- b. Forewing with the costal edge black *nigricosta*.

(1) OLAPA NUDA, Holl. Don. Smith's Travels, p. 409, pl. f. 5 (1897).

Hab. **Somaliland** ; **Central Africa**, Monbuttu ; **Mashonaland**, Salisbury (Marshall, Dobbie) ; **Gazaland**, Melsetter (Marshall), Mt. Chirinda (Marshall) ; **Natal**, Gadzima (Marshall) ; **Cape Colony**, Ovampo Lake. *Exp.* 46-56 mill.

(2) OLAPA FURVA, n. sp.

Fulvous yellow ; antennæ black ; tibiæ and tarsi suffused with black ; wings semihyaline fulvous yellow, the veins dark ; a fine dark terminal line.

Hab. **Mashonaland**, Mazoe District (Marshall, Dobbie) ; **Natal**, Gadzima (Marshall). *Exp.* 48-56 mill.

(3) OLAPA FLABELLARIA, Fabr. Mant. Ins. ii. p. 188 (1787).

Liparis crocicollis, Herr.-Schäff. Aussereur. Schmett, f. 110 (1854).

Olapa temperata, Wlk. iv. 823 (1855).

Antiphella vecontia, Druce, A.M.N.H. (7) iii. p. 469 (1899).

Hab. **Nigeria**, Borgu, Gelwa Lake ; **Abyssinia**, Atbara ; **Natal**,

Karkloof (Marshall), Durban (Gueinzuis, Leigh); **Cape Colony**, (Dr. Smith, Townsend), Grahamstown, Knysna (Trimen).
Exp. 40-66 mill.

(4) *OLAPA NIGRICOSTA*, n. sp.

♂. Head yellow; antennæ brownish; palpi black at extreme tips; thorax white; fore and mid tibiæ and tarsi streaked with black above; abdomen white; wings semihyaline white; forewing with the costal edge black, the costal area and veins more thickly scaled.

Hab. **Cape Colony.** *Exp.* 38 mill. Type in B.M.

GENUS *BRACHAROA*, nov.

Type *B. quadripunctata*.

Proboscis absent; palpi minute, hairy; antennæ of male with very long branches; hind tibiæ with the medial spurs absent. Forewing short and broad, the termen curved; vein 3 from close to angle of cell; 4, 5 stalked; 6 from below upper angle; 9 from 10 anastomosing with 8 to form a very short areole; 11 from cell. Hindwing with veins 3, 4 from angle of cell; 5 from above angle; a recurrent vein in cell running back to base and the upper part of cell open; 6, 7 stalked.

A. Forewing ochreous or brownish ochreous *quadripunctata*.

B. Forewing reddish brown *dregei*.

(1) *BRACHAROA QUADRIPUNCTATA*, Wllgrn. Cfv. Vet. Ak. Förh. 1875, p. 99.

Aroa bistigmigera, Butl. P.Z.S., 1896, p. 847, pl. xlii. f. 7.

Hab. **British East Africa**, Neugia, Machakos, Port Ugowe; **British Central Africa**, Kondowi; **Gazaland**, Mt. Chirinda (Marshall); **Transvaal**, Johannesburg (Rose); **Zululand**, Lower Tugela (Reynolds); **Natal**, Estecourt (Hutchinson), Durban (Delvin); **Basutoland**, Maseru (Crawshay). *Exp.* 22-26 mill.

(2) *BRACHAROA DREGEI*, Herr Schöff. Aussereur. Schmett. f. 114 (1854).

Hab. **Cape Colony**, Capetown (Sir A. Smith, Matthew). *Exp.* 24 mill.

GENUS *CIMOLA*.

Type.

Cimola, Wlk. iv. 817 (1855) *opalina*.

CIMOLA OPALINA, Wlk. iv. 817 (1855).

Anomæotes thymiathis, Druce, Ent. Mo. Mag. xx. p. 156 (1883).

Hab. **Delagoa Bay** (Mrs. Monteiro); **Natal**, Karkloof (Marshall), Durban (Plant, Leigh). *Exp.* 34 mill.

GENUS CREAGA.

Type.

Creaga, Wllgrn. K. Vet. Akad. Handl. (2) v.

(4), p. 38 (1865)... .. *dealbata*.

CREAGA DEALBATA, Herr.-Schäff. Aussereur. Schmett. f. 111 (1854).

Lælia aliena, Wllgrn. Wien. Ent. Mon. iv. p. 162 (1860).

Hab. **Mashonaland**, Salisbury (Marshall); **Natal**, Malvern (Marshall), Durban (Bowker, Heale, Plant, Whyte); **Cape Colony**, Knysna (Trimen), Capetown. *Exp.* 40-54 mill.

GENUS REDOA.

Type.

Redoa, Wlk. iv. 826 (1855) *submarginata*.

REDOA MELANOCRASPIS, n. sp.

Head, thorax, and abdomen pure white; antennæ with the branches tinged with fuscous; fore tibiæ streaked with fuscous above; wings semihyaline white, forewing with the base of costal edge more or less black.

Hab. **Gazaland**, Chirinda Forest (Marshall); **Transvaal**, Endla-togana (Mrs. W. M. Mercer); **Natal**, Karkloof (Marshall), Durban (Heale, Leigh). *Exp.* 30-42 mill.

GENUS BAZIZA.

Type.

Baziza, Wlk. xxxii. 398 (1865) *melaxantha*.

BAZIZA PERCULTA, Dist. A.M.N.H. (6) xx. p. 201 (1897).

Hab. **Transvaal**, Pretoria (Distant). *Exp.* 26 mill.

GENUS PSALIS.

Type.

Psalis, Hübn. Zütr. 2. p. 19 (1827), non descr.

Moore, Lep. Ceyl. ii. p. 94 (1882) *securis*.

PSALIS SECURIS, Hübn. Zütr. 2. p. 19. ff. 291, 292 (1827).

Hab. **British East Africa**, Sabaki Valley; **Mashonaland**, Salisbury (Marshall, Dobbie); **Transvaal**, Pochefstroom District; **Natal**, Durban (Leigh); **India**; **Ceylon**; **Burma**; **Java**; **Australia**. *Exp.* ♂ 34, ♀ 50 mill.

GENUS LÆLIA.

	Type.
<i>Lælia</i> , Steph. Syst. Cat. Brit. Ins. ii. p. 52 (1829)	<i>cænosa</i> .
<i>Cropera</i> , Wlk. iv. 825 (1855)	<i>testacea</i> .
<i>Anthora</i> , Wlk. iv. 801 (1855)	<i>subrosea</i> .

A. Forewing without postmedial series of spots.

- a*. Forewing with the veins dark... .. *phlebitis*.
b. Forewing with the veins not dark... .. *testacea*.

B. Forewing with more or less prominent series of spots or points.

a. Forewing with the series of spots incurved below vein 4.

- a*¹. Forewing with the postmedial spots red... .. *fulvinotata*.
*b*¹. Forewing with the postmedial spots dark.
*a*². Colour ochreous yellow... .. *adspersa*.
*b*². Colour pale lemon-yellow... .. *setinoides*.

b. Forewing with the series of spots obliquely excurved below vein 4.

- a*¹. Colour orange-yellow... .. *punctulata*.
*b*¹. Colour pale yellow largely suffused with crimson... .. *hæmatica*.
*c*¹. Colour whitish.
*a*². Forewing tinged with pale purplish pink... .. *subrosea*.
*b*². Forewing tinged with pale brown... .. *diascia*.
*d*¹. Colour pale reddish brown.
*a*². Forewing without black fasciæ... .. *xyleutis*.
*b*². Forewing with black fasciæ on median nervure and
above inner margin... .. *bifascia*.
*e*¹. Colour more fiery red... .. *figlina*.

(1) LÆLIA PHLEBITIS, n. sp.

♂. Head, thorax, and abdomen fulvous yellow; tibiæ and tarsi streaked with black. Forewing fulvous yellow; the costal edge fuscous at base; the veins fuscous except on costal area and towards base. Hindwing fulvous yellow.

♀ rather paler and the wings semihyaline.

Hab. **Mashonaland**, Salisbury, Umtali (Marshall). *Exp.* ♂ 30, ♀ 46 mill. Type in B.M.

(2) LÆLIA TESTACEA, Wlk. iv. 826 (1855).

Hab. **British East Africa**, Machakos, Usambara, M'gana; **Natal**, Durban (Gueinzus, Gooch, Burrows); **Cape Colony**, Transkei (Miss F. Barrett). *Exp.* ♂ 34, ♀ 46 mill.

(3) LÆLIA FULVINOTATA, Butl. P.Z.S., 1893, p. 678.

Hab. **British Central Africa**, Zomba; **Mashonaland**, Salisbury, Umtali (Marshall); **Gazaland**, Mt. Chirinda (Marshall). *Exp.* ♂ 42, ♀ 54 mill.

- (4) *LÆLIA* *ADSPERSA*, Herr.-Schäff. Aussereur. Schmett. f. 109 (1854).
 „ *prolixa*, Wlgrn. Wien. Ent. Mon. iv. p. 162 (1860).
Hab. **Nigeria**, Lokoja; **Natal**, Malvern (Marshall), Durban
 (Gooch, Bowker). *Exp.* 30–38 mill.

- (5) *LÆLIA* *SETINOIDES*, Holl. Psyche, vi. p. 431 (1893).
Hab. **West Africa**, Cameroons, Congo; **British East Africa**,
 Kanisa, Shambe; **Natal**, Victoria District (Gooch). *Exp.*
 32–40 mill.

- (6) *LÆLIA* *PUNCTULATA*, Butl. A.M.N.H. (4) xvi. p. 400 (1875).
Hab. **Natal**, Durban (Burrows, Leigh); **Cape Colony** (Sir A.
 Smith), King William's Town (Lightfoot). *Exp.* 28–36 mill.

- (7) *LÆLIA* *HÆMATICA*, n. sp.

Head and thorax yellow; patagia crimson; abdomen ochreous white. Forewing yellow suffused with crimson except on costal area; a black-irrorated fascia below cell to origin of vein 2; a spot in end of cell or a fascia extending to near termen; a postmedial series of small spots, the one above vein 4 displaced inwards, then running obliquely towards the submedian fascia. Hindwing semi-hyaline white, the cilia tinged with ochreous.

Hab. **British East Africa**, Nairova, Gwelil (Betton); **Mashonaland**, Salisbury (Marshall, Dobbie). *Exp.* 32 mill. Type in B.M.

- (8) *LÆLIA* *SUBROSEA*, Wlk. iv. 801 (1855).
 „ *subrufa*, Snell. Tijds. v. Ent. xv. p. 39 (1872), and xxii.
 p. 105, pl. 8, f. 6 (1879).
 „ *rosea*, Schaus, S. Leone Lep. p. 26, pl. 1, f. 3 (1893).
Hab. **Sierra Leone**; **Natal**, Durban (Leigh). *Exp.* ♂ 28,
 ♀ 36 mill.

- (9) *LÆLIA* *DIASCIA*, n. sp.

Head, thorax, and abdomen ochreous white. Forewing ochreous white rather thickly irrorated with fuscous forming indistinct streaks in the interspaces, the streak in discal fold very distinct; an oblique series of four points from median nervure near end of cell to vein 1; a postmedial series of points in the interspaces, running obliquely from below vein 7 near termen to submedian fold with a slight outward curve at middle, then bent inwards towards the medial series, a dark shade on the inner side of the series sometimes present. Hindwing white with a slight yellowish tinge.

Hab. **Abyssinia**, Atbara; **British East Africa**, Kikuyu (Crawshay,

Betton), Numisu (Lord Delamere); **Mashonaland** (Dobbie); **Natal** (Gooch); **Cape Colony**, Transkei (Miss F. Barrett). *Exp.* ♂ 30, ♀ 30-40 mill. Type in B.M.

(10) *LÆLIA XYLEUTIS*, n. sp.

♂. Head and thorax pale red-brown; abdomen ochreous white, the ventral surface browner. Forewing pale red-brown sparsely irrorated with fuscous; a series of small black spots in the interspaces from above vein 6 to submedian fold towards which it is bent inwards, and with a slight outward curve at middle. Hindwing very pale pinkish.

♀ ochreous white, the costa of forewing tinged with ochreous.

Hab. **Delagoa Bay** (Junod); **Basutoland**, Masite (Crawshay). *Exp.* 38 mill. Type in B.M.

(11) *LÆLIA BIFASCIA*, n. sp.

♂. Head and thorax pale reddish brown often tinged with fuscous; pectus and legs dark brown; abdomen ochreous white, ventrally tinged with rufous. Forewing pale reddish brown irrorated with black; a diffused black fascia on medial nervure and basal half of vein 4; a similar fascia on vein 1 from before middle to beyond middle; a subterminal series of obscure streaks on the veins, often almost obsolete. Hindwing ochreous white.

♀ usually rather redder; forewing with the fasciæ narrower and often shorter.

Hab. **British East Africa**, Machakos (Crawshay); **Zululand**, Lower Tugela (Reynolds); **Natal**, Mooi River, Durban (Leigh); **Cape Colony**, Transkei (Miss F. Barrett), Knysna (Trimen), Kokstad (Mrs. Pringle). *Exp.* 32-38 mill. Type in B.M.

(12) *LÆLIA FIGLINA*, Dist. A.M.N.H. (7) iv. p. 361 (1899).

Hab. **Transvaal**; **Natal**, Delvin (Stanger). *Exp.* 40 mill.

AUCTORUM.

Lælia amabilis, Auriv. Œfv. Vet. Akad.

Förh. xxxvi. (7) p. 58 (1879) Damaraland.

GENUS DASYCHIRA.

Type.

Dasychira, Steph. Ill. Brit. Ent. Haust. ii.

p. 58 (1829) *pubibunda*.

Boreconia, Wlk. xxxii. 459 (1865) *fusca*.

Sect. I. Abdomen without dorsal crests.

- A. Forewing with the basal and medial areas tinged with greenish.
 a. Forewing with subterminal series of small dark lunules *fusca*.
 b. Forewing without subterminal series of small dark lunules *herbida*.
 B. Forewing with the basal and medial areas not tinged with greenish.
 a. Forewing with the postmedial line not angled inwards in discal fold *municipalis*.
 b. Forewing with the postmedial line angled inwards in discal fold.
 a¹. Hindwing white, the apical area tinged with fuscous.. .. *postpura*.
 b¹. Hindwing fuscous brown *postfusca*.

(1) *DASYCHIRA FUSCA*, Wlk. vi. 918 (1855) ♂.

Orygia tephra, Herr.-Schäff. Aussereur. Schmett. f. 387 (1855).

Boreconia subviridis, Wlk. xxxii. 460 (1865) ♀.

Hab. Cape Colony (Sir A. Smith), Knysna (Trimen). *Exp.* 40-52 mill.

(2)**DASYCHIRA HERBIDA*, Wlk. vii. 1740 (1856).

Hab. Cape Colony. Exp. 60 mill.

(3) *DASYCHIRA MUNICIPALIS*, Dist. A.M.N.H. (6) xx. p. 200 (1897) ♂.

Lacipa diffusa, Dist. A.M.N.H. (6) xx. p. 200 (1897) ♀.

Hab. British Central Africa, Chiromo; **Transvaal**; **Natal**;
Cape Colony, Transkei, Annshaw (Miss F. Barrett). *Exp.* 36-40 mill.

(4) *DASYCHIRA POSTPURA*, n. sp.

♂. Head and thorax white mixed with dark brown; palpi black at sides; tegulae with black medial line; tarsi banded with black, abdomen white irrorated with brown. Forewing white slightly tinged with brown and thickly irrorated with black; costa black at base; a subbasal black line angled outwards in cell and ending at submedian fold; antimedial line angled outwards below costa, then dentate; orbicular and reniform slightly defined by black, the former irregularly rounded, the latter with fuscous centre; a slight incurved medial shade; postmedial line inwardly oblique at costa, bent outwards below costa, then dentate, angled inwards in discal fold, retracted to near origin of vein 2, then inwardly oblique; two black striae from costa before apex; a highly crenulate terminal line; cilia grey and black. Hindwing white; a slight discoidal lunule; the terminal area slightly irrorated with brown, more prominently on apical area.

Hab. Cape Colony, Stellenbosch. *Exp.* 32 mill. Type in B.M.

(5) *DASYCHIRA POSTFUSCA*, n. sp.

♂. Head and thorax grey-white mixed with brown; palpi

blackish at sides; tegulae with medial black line; tarsi banded with black; abdomen brown with greyish segmental bands towards extremity, the ventral surface white. Forewing grey suffused with brown especially on medial and terminal areas and irrorated with fuscous; costal edge black at base; subbasal line angled outwards in cell, oblique from submedian fold to vein 1; antemedial line double, strongly dentate; orbicular and reniform defined by black and with brownish centres, the former elliptical; traces of an incurved, waved medial line; postmedial line strongly bent outwards below costa, then irregularly dentate, angled inwards in discal fold and below vein 4 retracted to near origin of vein 2, then outwardly oblique; two oblique black striae from costa before apex; a series of black and white striae before termen. Hindwing fuscous brown; the under side paler brown with dark discoidal lunule and curved postmedial line.

Hab. Cape Colony, Kowie (Dr. Becker). *Exp.* 34 mill. Type in B.M.

Sect. II. Abdomen with dorsal series of crests.

A. Forewing with the ground colour brownish.

a. Forewing without whitish spots on costa and in end of cell.

a¹. Forewing without whitish patches on inner or apical areas.

a². Hindwing white or fuscous.

a³. Forewing with the postmedial line placed on an oblique rufous band *curviringata*.

b³. Forewing with the postmedial line not placed on an oblique rufous band.

a⁴. Forewing with the lines rufous *rubrifilata*.

b⁴. Forewing with the lines dark.

a⁵. Forewing with the postmedial line outwardly oblique towards costa *ecscota*.

b⁵. Forewing with the postmedial line incurved to costa.

a⁶. Forewing with the subterminal line dark *extorta*.

b⁶. Forewing with the subterminal line whitish defined by dentate dark marks on inner side *lunensis*.

b⁷. Hindwing black in male, orange in female *libyra*.

c². Hindwing bright rufous *metathermes*.

b¹. Forewing with white patches on inner and apical areas *whitei*.

b. Forewing with whitish spots on costa and in end of cell *proleprota*.

B. Forewing with the ground colour grey.

a. Forewing with medial line *atrifilata*.

b. Forewing without medial line.

a¹. Forewing with the postmedial line not angled inwards in discal fold *extatura*.

b¹. Forewing with the postmedial line angled inwards in discal fold *gwelila*.

C. Forewing with the ground colour white.

a. Forewing suffused with green *mascarena*.

b. Forewing not suffused with green.

a¹. Forewing with the lines numerous, dark.

a². Forewing with the markings indistinct, fuscous.. .. *georgiana*.

b². Forewing with the markings prominent, black *octophora*.

b¹. Forewing with slight yellowish ante- and postmedial lines *confinis*.

(6) *DASYCHIRA CURVIVIRGATA*, Karsch, Ent. Nachr. 1895, p. 373, pl. iv. f. 3.

Hab. **West Africa**, Togo; **British Central Africa**, Nyasaland; **Matabeleland** (Oates). *Exp.* 40 mill.

(7) *DASYCHIRA RUBRIFILATA*, n. sp.

♀. Head and thorax pale reddish brown; abdomen grey-brown with the dorsal crests black. Forewing pale purplish grey thickly irrorated with fuscous; the lines ferruginous; an indistinct waved subbasal line from costa to submedian fold; a waved antemedial line; a reniform stigma indistinctly defined by ferruginous; oblique waved postmedial and subterminal lines slightly bent inwards between veins 3 and 1; a terminal series of striæ. Hindwing pale greyish fuscous; the under side whitish irrorated with fuscous and with indistinct postmedial line.

Hab. **British Central Africa** (Ambruster); **Rhodesia**, Sabakwe. *Exp.* 42 mill. Type in B.M.

(8) *DASYCHIRA ECSCOTA*, n. sp.

♂. Head and thorax reddish brown mixed with black; abdomen fuscous, the dorsal crests reddish. Forewing pale grey-brown with some dark irroration, the basal half and postmedial and terminal areas suffused with greenish fuscous; traces of a waved rufous and black subbasal line; an indistinct oblique waved rufous and black antemedial line; the reniform defined at sides by very obscure rufous and black bars; a better defined double, minutely waved postmedial line filled in with rufous, oblique from costa to submedian fold then bent outwards, some blackish suffusion beyond it towards costa; a subterminal series of rufous and fuscous spots; cilia chequered grey and fuscous. Hindwing greyish, thickly irrorated with fuscous brown, the terminal area rather darker; the under side more ochreous irrorated with brown, a slight discoidal spot, postmedial line and diffused subterminal band.

♀. Forewing with the medial and terminal areas paler.

Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* ♂ 30, ♀ 40 mill. Type in B.M.

- (9) *DASYCHIRA EXTORTA*, Dist. A.M.N.H. (6) xx. p. 203.

Lymantria hera, Druce, A.M.N.H. (7) i. p. 209 (1898).

Hab. **British East Africa**, Athi-ya-Mawe; **Mashonaland**, Umtali (Marshall); **Transvaal**; **Natal**, Durban (Queckett, Leigh); **Cape Colony**, Transkei (Miss F. Barrett), Grahamstown. *Exp.* 30-40 mill.

Larva. Fuscous black, the warts with tufts of loose greyish hair; subdorsal pencils of black hair on first somite just behind head; large dorsal brushes of red-brown hair on fourth to seventh somite . . . urticating.

- (10) *DASYCHIRA LUNENSIS*, n. sp.

♂. Head, thorax, and abdomen dark brown mixed with some grey. Forewing pale olive irrorated with brown, the costal area, cell and area from below end of cell to subterminal line suffused with purplish; traces of a subbasal line angled outwards below costa and extending to vein 1; traces of a double irregularly dentate antemedial line; postmedial line minutely dentate, bent outwards below costa, excurved to vein 4, then incurved, an oblique series of dentate white and black marks beyond it between veins 4 and submedian fold, the lowest larger; a subterminal series of black striæ obliquely placed above veins 3 and 2. Hindwing ochreous whitish tinged with fuscous on terminal area.

♀. Forewing with the medial area tinged with greenish; reniform suffused with whitish; a large brownish semilunate patch from below costa to vein 2; a whitish line before the subterminal striæ angled inwards in discal fold and strongly in submedian fold, and with a series of dentate black marks on its inner side.

Hab. **Natal**, Durban (Gooch, Leigh). *Exp.* ♂ 32, ♀ 36 mill.

Larva. Yellow; warts with tufts of long whitish hair; first somite with lateral pencils of long plumose brown hair projecting forward; fourth to seventh somite with dorsal brushes of short whitish hair; a brownish dorsal stripe spotted with yellow, on thoracic somites barred with yellow, defined below by the yellow subdorsal line with crimson marks on it at middle of each segment; lateral line indistinct, yellow; head yellow marked with crimson; prolegs crimson-tipped.

- (11)* *DASYCHIRA LIBYRA*, Druce, A.M.N.H. (6) xvii. p. 352 (1896).

Heteronygmia flammeola, Dist. A.M.N.H. (7) vii. p. 360 (1899).

Hab. **East Africa**; **Transvaal**, Lydenburg. *Exp.* ♂ 42, ♀ 50 mill.

- (12) *DASYCHIRA METATHERMES*, n. sp.

♂. Head and thorax whitish mixed with brown and tinged with

pale rufous ; tarsi with blackish rings ; abdomen fulvous, the dorsal crests black, the ventral surface tinged with fuscous. Forewing greyish tinged with rufous and thickly irrorated with dark brown ; an indistinct double subbasal line angled inwards in submedian fold and outwards on vein 1 ; antemedial line double, angled inwards in submedian fold, a blackish patch below the cell from it to the slightly incurved black medial line ; postmedial line black defined by whitish on outer side, excurved between veins 7 and 4, then oblique and angled inwards in submedian fold ; subterminal line whitish, excurved at vein 7 and middle, angled inwards in discal and submedian folds ; a series of dark striæ before termen, the one above submedian fold obliquely placed ; cilia chequered fuscous and brown. Hindwing bright fulvous, the apical area suffused with brown ; the under side with slight discoidal spot and curved postmedial line.

Hab. **Cape Colony**, Grahamstown, Kouri River (Dr. Becker). *Exp.* 34 mill. Type in B.M.

(13) *DASYCHIRA WHITEI*, Druce, A.M.N.H. (7) i. p. 209 (1898).

Hab. **West Africa**, Old Calabar ; **Natal**, Durban (Bowker, Innes, Marshall). *Exp.* 34 mill.

(14) *DASYCHIRA PROLEPROTA*, n. sp.

♂. Head, thorax, and abdomen dull brown suffused with whitish. Forewing dull brown tinged with grey ; some ill-defined whitish marks at base ; two whitish spots on middle of costa and two towards apex ; reniform narrow, filled in with whitish ; traces of a double waved antemedial line ; postmedial line slightly bent outwards below costa, excurved to vein 4, then angled inwards in submedian fold ; cilia with whitish points at extremity of veins. Hindwing dull reddish brown.

Hab. **Natal**, Durban (Leigh). *Exp.* 32 mill. Type in B.M.

(15) *DASYCHIRA ATRIFILATA*, n. sp.

♂. Head and thorax grey mixed with black ; metathorax with black bars ; fore and mid tarsi black ; abdomen brownish grey. Forewing grey thickly irrorated with fuscous ; a slight subbasal line, angled outwards below costa and ending on a wedge-shaped black patch below cell with a fuscous shade from its extremity to costa ; antemedial line rather broad, slightly angled outwards below costa, then straight ; a rounded spot defined by black in end of cell with a striga from costa above it ; a medial line from origin of vein 2 incurved to inner margin ; a minutely dentate postmedial line excurved from costa to vein 4, then angled inwards to below end of cell, then

bent outwards again; a fine subterminal line incurved at veins 5, 3, 2. Hindwing white, the termen tinged with fuscous.

♀. Forewing more strongly irrorated with black; antemedial line less distinct; reniform outlined by black and produced upwards, with a wedge-shaped mark defined by black from its inner side to antemedial line; postmedial line not so strongly angled inwards below cell, nor bent outwards again; subterminal line less distinct with an irregular waved black line before it strongly incurved and with a black lunule on it below vein 2. Hindwing more tinged with fuscous; the under side with the costal and terminal areas irrorated with fuscous, a discoidal lunule and diffused sinuous subterminal line.

Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* ♂ 40, ♀ 46 mill. Type in B.M.

Pupa in a thin cocoon of grey and black hair.

- (16)**DASYCHIRA EXTATURA*, Dist. A.M.N.H. (6) xx. p. 202 (1897).

Hab. **Transvaal**, Pretoria (Distant). *Exp.* ♂ 40, ♀ 50 mill.

- (17) *DASYCHIRA GWELILA*, Swinh. Trans. Ent. Soc., 1903, p. 469.

Hab. **British East Africa**, Gwelil, Machakos; **Rhodesia**, Bulawayo (F. Eyles); **Natal**, Durban (Leigh). *Exp.* 36 mill.

- (18) *DASYCHIRA MASCARENA*, Bull. A.M.N.H. (5) ii. p. 294 (1878).

„ *cangia*, Druce, P.Z.S. 1887, p. 674. Holland, *Psyche*, vi. p. 567, pl. 10, f. 12.

Hab. **Delagoa Bay**; **Madagascar**. *Exp.* ♂ 50, ♀ 56 mill.

- (19) *DASYCHIRA GEORGIANA*, Fawcett, Tr. Zool. Soc. xv. p. 314, pl. xlix. ff. 19, 20, 21 (1900).

Hab. **Transvaal** (Marshall); **Natal**, Durban (Leigh). *Exp.* ♂ 42, ♀ 72 mill.

- (20) *DASYCHIRA OCTOPHORA*, n. sp.

♂. Head and thorax white; palpi black except at tips; lower part of frons black; a black bar between antennæ which have black points on shaft in front and blackish branches; tegulæ edged with black behind; thorax with black markings; legs banded with black; abdomen ochreous white with fuscous dorsal and lateral bands. Forewing white; the base of costa black; a subbasal black line from costa to submedian fold, angled outwards in cell; two irregularly dentate antemedial lines, the second arising from an annulus on costa and angled inwards nearly to former in cell; orbicular represented by a small annulus, the reniform by an 8-shaped mark; a striga from middle of costa and a Y-shaped mark on inner margin;

postmedial line irregularly dentate, bent outwards below costa, angled inwards in discal fold, strongly incurved below the cell, then bent outwards again; a wedge-shaped black mark from costa before apex with a white point on it; some irregular subterminal marks; a terminal series of black spots becoming larger and triangular towards tornus, emitting streaks on the cilia except towards tornus. Hindwing white, some fuscous marks at and below apex and a line towards tornus forming part of a subterminal band; a terminal series of black striæ; the under side with fuscous bars from costa before, at, beyond middle and at apex, a black discoidal lunule.

Hab. **Natal**, Durban (Millar); **Cape Colony**, Howie (Dr. Barker), Heald Town (Miss F. Barrett), Grahamstown. *Exp.* 38 mill. Type in B.M.

(21)**DASYCHIRA CONFINIS*, Dist. A.M.N.H. (7) iv. p. 360 (1899).

Hab. **Transvaal**, Natal Frontier. *Exp.* 52 mill.

GENUS LACIPA.

	Type.
<i>Lacipa</i> , Wlk. iv. 790 (1855)	<i>picta</i> .
<i>Microgymna</i> , Wllgrn. K. Vet. Akad. Handl. (2) v.	
p. 38 (1865)	<i>picta</i> .
A. Forewing with the ground colour yellowish	<i>sarcistis</i> .
B. Forewing with the ground colour white tinged with fuscous..	<i>pulverea</i> .
C. Forewing with the ground colour pure white.	
a. Forewing with the bands defined by black, an irregular medial series of black spots	<i>picta</i> .
b. Forewing with the bands not defined by black; no medial series of black spots.	
a ¹ . Forewing with terminal series of black points	<i>quadripunctata</i> .
b ¹ . Forewing with terminal series of yellow spots.	
a ² . Forewing with two or three black points on medial part of postmedial line	<i>gemmata</i> .
b ² . Forewing with complete series of black spots on inner side of postmedial line	<i>nobilis</i> .

(1) *LACIPA SARCISTIS*, n. sp.

Head, thorax, and abdomen orange-yellow; fore coxæ tinged with fuscous; anal tuft of female fuscous. Forewing flesh yellow irrorated with rough white scales; the costa more orange; traces of a curved orange subbasal line from costa to submedian fold; ante-medial line orange, acutely angled on median nervure and oblique towards costa and inner margin; an orange postmedial line arising near apex, very oblique below vein 7. Hindwing orange-yellow.

Under side of forewing except marginal areas suffused with fuscous in male.

Hab. **Natal**, Victoria District, Durban (Queckett). *Exp.* 28 mill.
Type in B.M.

- (2) *LACIPA PULVEREA*, Dist. A.M.N.H. (7) i. p. 117 (1898).

Euproctis pubescens, Swinh. Trans. Ent. Soc., 1903, p. 404.

Hab. **Transvaal**; **Zululand**, Lower Tugela (Reynolds); **Natal**,
Malvern (Marshall), Durban (Leigh). *Exp.* 24 mill.

- (3) *LACIPA PICTA*, Boisd. Delegorgue Voy. Afr. Austr. ii. p. 599
(1847); Herr.-Schäff. Aussereur. Schmett. f. 113.

Hab. **Cape Colony**, Grahamstown, Knysna (Trimen). *Exp.*
28 mill.

- (4) *LACIPA QUADRI-PUNCTATA*, Dewitz., Verh. L.C. Akad. xliii. p. 67,
pl. iii. f. 4 (1881).

Lacipa sexpunctata, Dist. A.M.N.H. (6) xx. p. 201 (1897).

„ *quinquepunctata*, Dist. A.M.N.H. (7) i. p. 117 (1898).

Hab. **British Central Africa**, Stevenson Road; **Mozambique**;
Mashonaland, Salisbury (Marshall, Dobbie), Umtali (Marshall);
Southern Rhodesia, Sebakwe; **Transvaal**. *Exp.* 26–34 mill.

- (5) *LACIPA GEMMATA*, Dist. A.M.N.H. (6) xx. p. 200 (1897).

Hab. **Transvaal** (Tulloch); **Natal**, Estcourt (Hutchinson),
Maritzburg (Burnup); **Cape Colony**, Grahamstown. *Exp.* 32–
42 mill.

- (6) *LACIPA NOBILIS*, Herr.-Schäff. Aussereur. Schmett. f. 388 (1855).

Hab. **Cape Colony**, Knysna (Trimen), Wynberg (Trimen).
Exp. ♂ 34, ♀ 42 mill.

GENUS MICRAROA, nov.

Proboscis absent; palpi short, not reaching beyond the frons and clothed with hair; antennæ of male with long branches; head, thorax, and abdomen clothed with rough hair; hind tibiæ with one pair of spurs. Forewing short and broad, the apex rounded; vein 3 from before angle of cell; 4, 5 from angle; the cell open; 6 from upper angle; 7, 8, 10 stalked, 9 absent, 11 from cell. Hindwing with vein 3 from close to angle of cell; 5 absent; a recurrent vein in cell, the upper part of which is open; 6, 7 stalked.

MICRAROA RUFESCENS, n. sp.

♂. Uniform red-brown, the branches of antennæ black.

Hab. **Natal**, Tugela River, Bond's Drift (Reynolds), Estcourt (Hutchinson), Maritzburg (Burnup). *Exp.* 22 mill. Type in B.M.

GENUS **ACLONOPHLEBIA**.

Type.

Aclonophlebia, Butl. P.Z.S., 1898, p. 428 ... *flavinotata*.

A. Hindwing yellow.

a. Forewing brown, with medial band formed of white patches .. *mosera*.

b. Forewing fuscous, with white patch on medial costal area and yellow patches below and beyond cell *lugardi*.

B. Hindwing pale crimson *rhodea*.

C. Hindwing white.. .. *tessellata*.

(1) **ACLONOPHLEBIA MOSERA**, Druce, A.M.N.H. (7) i. p. 208 (1896).

Hab. **Delagoa Bay** (Mrs. Monteiro); **Rhodesia**, Bulawayo (Eyles); **Natal**, Durban (Queckett, Leigh). *Exp.* 32-50 mill. Larva hairy, brown, strongly urticating. Pupa hair-brown (Leigh).

(2) **ACLONOPHLEBIA LUGARDI**, Swinh. Trans. Ent. Soc., 1903, p. 493.

Hab. **N'Gamiland** (Lugard). *Exp.* ♂ 34, ♀ 44 mill.

(3) **ACLONOPHLEBIA RHODEA**, n. sp.

♀. Head and thorax brown, area round base of antennæ and sides of neck, some hair behind tegulæ and pectus crimson; antennæ blackish; femora crimson above; abdomen crimson with dorsal series of small black spots, the extremity blackish, the anal tuft yellow. Forewing fuscous, irrorated with white, the veins speckled with pinkish white; subbasal line represented by small crimson spots with black points on their inner side; a white antemedial band oblique from costa to below cell where it becomes confluent with an irregular medial white patch on inner margin interrupted by dark striæ; postmedial line expanding towards costa into a white patch angled outwards at vein 7 where it is met by two obliquely placed spots from apex, angled outwards on veins 4 and 3, then inwards and ending on inner margin; a series of small crimson spots on termen and cilia. Hindwing pale crimson; a pale fuscous terminal band from apex to vein 3, then becoming narrower and subterminal and ending at tornus.

Hab. **Delagoa Bay** (Junod). *Exp.* 40 mill. Type in B.M.

- (4) *ACLONOPHLEBIA TESSELLATA*, Dist. A.M.N.H. (6) xx. p. 201 (1897).

Hab. **Mashonaland** (Dobbie); **Transvaal**, Lydenburg. *Exp.* 40 mill.

AUCTORUM.

Arctia rhodalipha, Feld. Reis. Nov. pl. 100,
f. 25 (1874) Cape Colony

GENUS EUPROCTIS.

Type.

Euproctis, Hübn. Verz. p. 159 (1827) ... *chrysorrhæa*.
Dulichia, Wlk. iv. 809 (1855) *fasciata*.
Lopera, Wlk. iv. 919 (1855) *squamosa*.

- A. Forewing with more or less prominent ante- and post-medial lines or bands.
- a. Forewing pale brown, the costal area suffused with white .. *aspersa*.
 - b. Forewing orange to white.
 - a¹. Abdomen with the extremity black *terminalis*.
 - b¹. Abdomen with the extremity not black.
 - a². Forewing without red discoidal spot.
 - a³. Forewing with the basal area irrorated with rough black scales *squamosa*.
 - b¹. Forewing with the basal area not irrorated with black scales.
 - a⁴. Forewing with the ante- and post-medial lines not red.
 - a⁵. Forewing with subterminal points of black scales *punctifera*.
 - b⁵. Forewing without subterminal black points *mesozona*.
 - b⁴. Forewing with the ante- and post-medial lines more or less red *fasciata*.
 - b². Forewing with discoidal red spot *sanguigutta*.
- B. Forewing without ante- and post-medial lines or bands.
- a. Ground colour of male orange *crocata*.
 - b. Ground colour of male ochreous or pale yellow.
 - a¹. Forewing with some black scales round the red discoidal spot *stellata*.
 - b¹. Forewing without black scales round the red discoidal spot *crocosticta*.
 - c. Forewing white or yellowish white.
 - a¹. Forewing without red subterminal marks *monosticta*.
 - b¹. Forewing with red subterminal marks.
 - a². Forewing with red marks near tornus *hamodetes*.
 - b². Forewing with red marks near apex and tornus *rufopunctata*.
- (1) *EUPROCTIS ASPERSA*, Feld. Reis. Nov. pl. 100, f. 6 (1872).
Hab. **Cape Colony**, Van Vlyk's Vley (Alston), Deelfontein (Col. Sloggett). *Exp.* 36 mill.

EUPROCTIS TERMINALIS, Wlk. iv. 794 (1855).

Hab. **Natal**, Karkloof (Marshall, Heale); **Cape Colony**, Grahamstown, Knysna (Trimen). *Exp.* ♂ 30-34, ♀ 38 mill.

(3) **EUPROCTIS SQUAMOSA**, Wlk. iv. 920 (1855).

Hab. **Cape Colony**, Capetown. *Exp.* 34-44 mill.

(4) **EUPROCTIS PUNCTIFERA**, Wlk. iv. 792 (1855).

Hypogymna melanura, Wllgrn. Wien. Ent. Mon. iv. p. 163 (1860).

Lopera gaudens, Wlk. xxxii. 357 (1865).

Hab. **Delagoa Bay** (Junod); **Natal**, Durban (Gueinzus, Gooch, McKen); **Cape Colony**, Grahamstown. *Exp.* 30-38 mill.

(5) **EUPROCTIS MESOZONA**, n. sp.

♂. Head and thorax brownish ochreous; abdomen orange, the anal tuft brownish. Forewing pale yellow mostly suffused with pale fulvous; traces of pale ante- and postmedial lines angled outwards at middle; the medial area with large black-tipped rufous scales in end of cell, beyond lower angle and from lower angle to inner margin. Hindwing bright orange.

Hab. **Cape Colony**, Grahamstown. *Exp.* 32 mill.

(6) **EUPROCTIS FASCIATA**, Wlk. iv. 809 (1855).

Artaxa squamiplaga, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 338 (1869);

Euproctis susanna, Stgr. Iris. vii. p. 258, pl. 9 f. 9 (1894).

„ *torrida*, Dist. A.M.N.H. (6) xx. p. 202 (1897).

Hab. **Syria**; **Aden**; **West Africa**, Sierra Leone, Nigeria, Congo; **Mashonaland**, Salisbury (Marshall); **Transvaal**, Murchison Range; **Zululand**, Lower Tugela (Reynolds); **Natal**, Estcourt (Hutchinson). *Exp.* 30-46 mill.

(7) **EUPROCTIS SANGUIGUTTA**, n. sp.

♂. Bright orange. Forewing with indistinct pale ante- and postmedial lines, the former curved, the latter excurved at middle; a round discoidal blood-red spot on a rather paler medial band which is constricted below cell; an indistinct pale subterminal line, somewhat excurved at middle.

Hab. **Nyasaland**, Konelowi (Crawshay); **Mashonaland** (Dobbie); **Cape Colony**, Knysna (Trimen). *Exp.* 34 mill.

(8) **EUPROCTIS CROCAT**a, Boisd. Voy. Delegorgue, ii. p. 599 (1847); Herr.-Schäff. Aussereur. Schmett. f. 112.

Hypogymna cateja, Wllgrn. Wien. Ent. Mon. iv. p. 163 (1860).

Hab. **Natal**, Estcourt (Hutchinson); **Cape Colony** (Trimen).

Exp. 36-42 mill.

- (9) *EUPROCTIS STELLATA*, Dist. A.M.N.H. (6) xx. p. 202 (1897).

Hab. **Mashonaland**, Umtali (Marshall); **Delagoa Bay** (Junod);

Natal, Karkloof (Marshall), Estcourt (Hutchinson), Durban (Gooch, Burrows, Leigh); **Cape Colony**, Transkei (Miss F. Barrett), Grahamstown. *Exp.* ♂ 30, ♀ 38-44 mill.

- (10) *EUPROCTIS CROCOSTICTA*, n. sp.

♂. Ochreous yellow. Forewing with round orange-red discoidal spot.

♀. Rather paler; the anal tuft brown.

Hab. **British Central Africa**, West of Nyasa, Kondowi (Crawshay); **Mashonaland**, Salisbury (Marshall). *Exp.* ♂ 42, ♀ 48-54 mill.

- (11) *EUPROCTIS MONOSTICTA*, Butl. P.Z.S., 1898, p. 428, pl. 32, f. 7.

Hab. **British East Africa**, Taru, Machakos; **Natal**. *Exp.* ♂ 26, ♀ 42 mill.

- (12) *EUPROCTIS HÆMODETES*, n. sp.

Yellowish white; abdomen with the anal tuft yellow in male, brown in female. Forewing with orange-red discoidal spot surrounded by a few black scales; a similar spot just above tornus with some black scales above and below it; the male with a few dark scales on termen below apex.

Hab. **Cape Colony**, Knysna (Trimen). *Exp.* ♂ 34, ♀ 42 mill.

- (13) *EUPROCTIS RUFOPUNCTATA*, Wlk. Trans. Ent. Soc. (3) 1, p. 265 (1862).

Hab. **Delagoa Bay** (Junod); **Natal**, Durban (Queckett). *Exp.* 46 mill.

GENUS AROA.

	Type.
<i>Aroa</i> , Wlk. iv. 791 (1855)	<i>discalis</i> .
<i>Ornithopsyche</i> , Wllgrn. K. Vet.-Akad. Handl.	
(2) v. (4) p. 35 (1865)	<i>discalis</i> .

Sect. I. Forewing with vein 6 from upper angle of cell.

- (1) *AROA MELANOLEUCA*, n. sp.

♂. Head, thorax, and abdomen black mixed with some white hairs; branches of antennæ brown. Forewing black irrorated with

white; an obliquely curved, rather broad white band from just beyond upper angle of cell to vein 1 near tornus; cilia tipped with white. Hindwing black; an ill-defined oblique white band from costa beyond middle to submedian fold above tornus; cilia tipped with white; the under side with the band rather more defined and joining a diffused white fascia on inner area.

Hab. **Gazaland**, Melsetter, 5,500 ft. (Marshall). *Exp.* 26 mill.

Sect. II. Forewing with vein 6 from well below angle of cell.

(2) *AROA DISCALIS*, Wlk. iv. 792 (1855); Waterh. Aid. ii. pl. 178, f. 5.

„ *ochraceata*, Wlk. xxxii. 327 (1865).

„ *signata*, Wlk. xxxii. 328 (1865).

Ornithopsyche hypoxantha, Wlgrn. K. Vet.-Akad. Handl. (2) v.

(4) p. 35 (1865); Feld. Reis. Nov. pl. 100, f. 4.

Hab. **British East Africa**, Kikuyu, Munisu, Kiliman'jaro; **Uganda**, Port Ogowe, Marengi, Masevi; **British Central Africa**, Zomba; **Portuguese East Africa**, Quilimane, **Mashonaland**, Salisbury (Marshall); **Delagoa Bay** (Junod); **Zululand**, Lower Tugela (Reynolds); **Natal**, Malvern (Marshall), Durban (Gueinzus, Gooch, Trimen, Heale, Leigh); **Cape Colony**, Grahamstown. *Exp.* ♂ 34, ♀ 42-44 mill.

Larva hairy, nearly black; *Cocoon* whitish. Food plants, grasses (G. F. Leigh).

AUCTORUM.

Orgyia tricolor, Herr.-Schäff. Aussereur.

Schmett. i. f. 472 (1856) Cape Colony.

Ornithopsyche anthora, Feld. Reis. Nov.

pl. 100, f. 3 (1874) ? = *A. discalis* ♂ ... Cape Colony.

Orgyia melaxantha, Wlk. xxxii. 324 (1865) = *pyrrhochroma*, Wlk. xxxii. 329, is from India, not South Africa.

GENUS HOMOCHIRA, nov.

Type *H. rendalli*.

Palpi porrect to well beyond frons, the second joint thickly scaled, the third short; antennæ of male with long branches ending in a bristle, of female with shorter branches; legs hairy, the fore tibiæ and tarsal joints fringed with long hair; hind tibiæ with two pairs of spurs; abdomen with dorsal crests on basal segments. Forewing rather short and broad; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7;

11 from cell. Hindwing with veins 3, 4 shortly stalked or from angle; 5 from above angle; 6, 7 shortly stalked or from upper angle.

A. Hindwing orange.. .. . *difficilis*.
B. Hindwing brown *rendalli*.

(1) *HOMOCHIRA DIFFICILIS*, Wlk. xxxii. 328 (1865).

Hab. **Natal**, Durban (Gueinzus, Leigh). *Exp.* 40 mill.

(2) *HOMOCHIRA RENDALLI*, Dist. A.M.N.H. (6) xx. p. 203 (1897).

Hab. **Mashonaland**, Salisbury (Marshall), Umtali (Marshall);
Transvaal; **Natal**, Durban (Bowker). *Exp.* 36 mill.

GENUS LYMANTRIA.

	Type.
<i>Lymantria</i> , Hübn. Verz. p. 160 (1827) ...	<i>monacha</i> .
<i>Polymona</i> , Wlk. iii. 768 (1855)	<i>rufifemur</i> .
<i>Morasa</i> , Wlk. iv. 859 (1855)	<i>modesta</i> .
<i>Sarothropyga</i> , Feld. Reis. Nov. p. 8 (1875), non-descr.	<i>modesta</i> .

LYMANTRIA MODESTA, Wlk. iv. 859 (1855).

Sarothropyga rhodopepla, Feld. Reis. Nov. pl. 100, f. 23 (1875).

Hab. **Transvaal** (Leyds); **Natal**, Durban (Gueinzus, Bowker, Gooch, Leigh); **Cape Colony**, Grahamstown. *Exp.* ♂ 36, ♀ 54 mill.

AUCTORUM.

<i>Liparis subfusca</i> , Boisd. Voy. Delegorgue, ii. p. 598 (1847)...	Zululand.
<i>Liparis lutea</i> , Boisd. Voy. Delegorgue, ii. p. 598 (1847)...	Zululand.

GENUS CYMAROA, nov.

Type *C. leptopepla*.

Palpi porrect to well beyond frons and clothed with rather long hair; antennæ of male with moderate branches ending in a bristle, of female with very short branches, the shaft with rough scales above; hind tibiæ with two pairs of spurs; abdomen without dorsal crests. Forewing rather short and broad; veins 3 and 5 from near angle of cell; 6 shortly stalked with 7, 8, 9, 10; 11 from cell. Hindwing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

CYMAROA LEPTOPEPLA, n. sp.

♂. Head and thorax fulvous yellow mixed with fuscous; tibiae and tarsi banded with black; abdomen fulvous yellow slight irrorated with fuscous. Forewing fulvous yellow irrorated with black; subbasal line indistinct, diffused, waved, with more distinct black mark at costa; antemedial line irregularly dentate, bent outwards from subcostal nervure to submedian fold; medial line with black mark on costa, then very indistinct, waved, oblique to lower angle of cell where it is angled; postmedial line waved, oblique to below vein 6, then inwardly oblique, a similar slightly curved line beyond it; a very ill-defined waved subterminal line. Hindwing golden-yellow with small fuscous discoidal spot and ill-defined subterminal line.

♀. Browner, especially the hindwing.

Hab. **Basutoland**, Maseru (Crawshay); **Cape Colony**, Grahams-town (Miss F. Barrett), Capetown. *Exp.* 38-46 mill.

GENUS NAROMA.

	Type.
<i>Naroma</i> , Wlk. vii. 1744 (1856)	<i>signifera</i> .
<i>Hysibada</i> , Wlk. xxxii. 497 (1865)	<i>signifera</i> .
<i>Zarfa</i> , Wlk. Proc. Nat. Hist. Soc. Glasg. i.	
p. 338 (1869)	<i>signifera</i> .
<i>Wardenia</i> , Snell. Tijd. v. Ent. (2) vii. p. 40	
(1872)	<i>signifera</i> .

NAROMA SIGNIFERA, Wlk. vii. 1744 (1856).

Hysibada varipes, Wlk. xxxii. 498 (1865).

Zarfa lunifera, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 339 (1869).

Wardenia weyenberghi, Snell. Tijd. v. Ent. (2) vii. p. 43, pl. 3, ff. 9-12 (1872).

Cnethocampa cadica, Plotz, Stett. Ent. Zeit. xli. p. 85 (1880).

Dasychira mabilli, Rochebr. Bull. Soc. Philom. (7) viii. p. 30 (1884).

Hab. **West Africa**, Sierra Leone, Nigeria, Accra, Old Calabar, Congo; **Uganda**, Karasa; **Mashonaland** Salisbury (Marshall), Umtali (Marshall); **Natal**, Malvern (Marshall), Durban (Gueinzus, Leigh, Miss Heaton). *Exp.* 30-54 mill.

GENUS PTEREDOA, nov.

Type *P. plumosa*.

Palpi correct to just beyond frons, moderately clothed with hair; antennæ of male with extremely long feathery branches, decreasing

suddenly to apex, of female with short branches; hind tibia with one pair of spurs; abdomen without crests. Forewing rather short and broad; vein 3 from long before angle of cell; 5 from near angle; 7, 8, 9 stalked; 10, 11 from cell. Hindwing with vein 3 from before angle of cell; 6, 7 stalked.

Sect. I. Forewing with vein 6 from angle of cell; hindwing with vein 5 from just above angle.

- (1) *PTEREDOA USEBIA*, Swinh. Trans. Ent. Soc. 1903, p. 382.

Hab. **British Central Africa**, Likoma (de Jersey); **Delagoa Bay** (H. Junod). *Exp.* 34 mill.

Sect. II. Forewing with vein 6 from below angle of cell; hindwing with vein 5 from well above angle; fore tibia with the process long and arising from base.

- (2) *PTEREDOA PLUMOSA*, n. sp.

Head, thorax, and abdomen white; vertex of head orange; antennæ of male with the branches brownish; wings uniform white and almost hyaline, clothed with bifurcate hairs.

Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* 30-34 mill.

GENERA AUCTORUM.

Homæomeria flavicapilla, Wllgrn. Wien.

Ent. Mon. iv. p. 163 (1860); id. K. Vet.

Akad. Handl. (2) 5 (4) p. 36 (1865) ... Cape Colony.

Pygetera boldingii, Feld. Reis. Nov. pl. 99,

f. 8 (1874); Kirby, Cat. Het. p. 446 ... Cape Colony.

Oreinobia scurris, Wllgrn. Wien. Ent.

Mon. iv. p. 163 (1860); id. K. Vet.

Akad. Handl. (2) v. (4) p. 34 (1865) ... Cape Colony.

Palasea albimacula, Wllgrn. K. Vet. Akad.

Handl. (2) v. (4) p. 35 (1865) ... Cape Colony.

Rhyptopteryx sordida, Auriv. Cefv. Ak.

Förh. xxxvi. (7) p. 57 (1879) ... Damaraland.

FAMILY HYPsidÆ.

Key to the Genera.

- A. Forewing with vein 9 from 10 anastomosing with 8 to form the areole.

a. Palpi upturned, the third joint long and somewhat dilated at extremity.

a'. Forewing in both sexes on under side, with oblique furrow of ridged membrane with membranous tooth before it above

- inner margin towards tornus, coinciding with streak of large scales below costa of hindwing on upper side *Hypsa*.
*b*¹. Forewing normal *Digama*.
b. Palpi porrect, projecting about the length of head.
*a*¹. Mid tibiae with the spurs well developed *Dista*.
*b*¹. Mid tibiae with the spurs minute *Deilemera*.
 B. Forewing with veins 7, 8, 9 stalked.
a. Hindwing with vein 5 from near lower angle of cell *Alytarchia*.
b. Hindwing with vein 5 obsolescent from middle of discocellulars *Callioratis*.

GENUS HYPSA.

Type.

Hypsa, Hübn. Verz. p. 172 (1827)... .. *monycha*.
Pseudhypsa, Kirby, Cat. Het. p. 384 (1892)... .. *speciosa*.

Sect. I. (*Pseudhypsa*). Antennæ of male bipectinate, the apex simple.

- A. Hindwing white *speciosa*.
 B. Hindwing orange.
a. Forewing brown with fine white streaks on the veins.
*a*¹. Hindwing with black terminal band from apex to vein 1 *baumanniana*.
*b*¹. Hindwing wholly orange or with fuscous apical patch *subretracta*.
b. Forewing orange *conspicua*.
- (1) *HYPSA SPECIOSA*, Drury, Ill. Ex. Ent. ii. pl. 5, f. 2 (1773).
 „ *undulifera*, Wlk. vii. 1676 (1856); Snell, Tijds. v. Ent. xxxi. p. 126, pl. 1, f. 2.
Hab. **West Africa**, Sierra Leone, Gold Coast, Old Calabar, Nigeria; ? **South Africa**. *Exp.* 56–70 mill.
- (2) *HYPSA BAUMANNIANA*, Karsch. Ent. Nachr. xxi. p. 369, pl. iii., f. 5 (1895).
Hab. **West Africa**, Sierra Leone; **Mashonaland**, Salisbury (Marshall); **Natal**. *Exp.* 54–66 mill.
- (3) *HYPSA SUBRETRACTA*, Wlk. vii. 1676 (1856).
Aganais aphidas, Hopff. Monatsb. Berlin, 1857, p. 422; Peter's Reise Zool. v. p. 432, pl. 28, f. 8; larva Faweett, Tr. Zool. Soc. xv. p. 315, pl. 47, f. 16.
Hab. **West Africa**, Sierra Leone, Old Calabar, Nigeria; **British East Africa**, Tanga; **Natal**, Durban (Gooch, Leigh); **Cape Colony**, Grahamstown, Brak Kloof. *Exp.* 56–74 mill.
- (4) *HYPSA CONSPICUA*, Swinh. A.M.N.H. (7) xi. p. 503 (1903).
Hab. **Transvaal**; **Natal**, Pinetown (Bowker). *Exp.* 60–74 mill.
Hypsa borbonica is confined to Madagascar and Bourbon.

GENUS DIGAMA.

Type.

Sommeria, Hübn. Zutr. Ex. Schmett. iii.p. 13 (1827), non-deser. *culta*.*Digama*, Moore, Lep. E.I.C. p. 297 (1859) *hearseyana*.*Homæognatha*, Feld. Reis. Nov. p. 5 (1874),non-deser. *aganaïs*.

Sect. I. Antennæ of male bipectinate with long branches, the apex simple.

A. Hindwing white *spilosoma*.

B. Hindwing yellow.

a. Hindwing with terminal series of fuscous spots from apex to vein 2, or dentate band *sinuosa*.b. Hindwing with more or less developed fuscous band on apical part of termen; vertex of head without spot.. .. . *culta*.c. Hindwing wholly yellow; vertex of head with fuscous spot .. *aganaïs*.

(1) DIGAMA SPILOSOMA, Feld. Reis. Nov. pl. 106, f. 20 (1874).

Hab. **British East Africa**, Kikuyu; **Cape Colony**, Knysna (Trimen). *Exp.* 40-46 mill.

(2) DIGAMA SINUOSA, n. sp.

Head and thorax white; palpi with black bands on each joint; sides of frons above and below with black spots; antennæ black; tegulæ with black spots and black at base and sides; patagia black at shoulders; prothorax with black patch, metathorax with pair of spots; pectus and coxæ with black spots; legs fuscous ringed with white; abdomen orange, ventrally whitish, with dorsal, lateral and sublateral series of black spots. Forewing white; an irregular sub-basal black patch on costa with white spot on it, a spot below cell and round spot further from base above inner margin with a pair of spots beyond them; irregular patches on costa at and beyond middle, their lower extremities conjoined by a very irregular somewhat x-shaped mark, its lower outer arm reaching inner margin; from the lower extremity of postmedial costal patch arises a loop-shaped black mark connected with the very irregular terminal band, which is grey edged with black on inner side and is more deeply excised above veins 6 and 3. Hindwing pale yellow with terminal series of fuscous spots from apex to vein 2 in male, in female with maculate dentate band.

Hab. **Natal**, Durban (Leigh). *Exp.* 42 mill. Type in B.M.

(3) DIGAMA CULTA, Hübn. Zutr. Ex. Schmett. iii. p. 13, ff. 433-4 (1827).

Spilosoma marmorata, Wlk. xxxi. 293 (1864).

Hab. **Delagoa Bay** (Mrs. Monteiro); **Cape Colony**, Grahams-town. *Exp.* 30-40 mill.

(4) **DIGAMA AGANAIS**, Feld. Reis. Nov. pl. 106, f. 21 (1874).

Hab. **Natal**, Durban (Gooch, Queckett, Leigh). *Exp.* 40-42 mill.

Sect. II. Antennæ of male bipectinate with moderate branches on outer side and very short branches on inner.

(5) **DIGAMA OSTENTATA**, Dist. A.M.N.H. (7) iii. p. 463 (1899).

Hab. **Transvaal**; **Cape Colony**, Annshaw (Miss F. Barrett). *Exp.* 36 mill.

GENUS DIOTA.

Type.

Diota, Wllgrn. Svensk. Handl. (2) v. (4) p. 46

(1865) *rostrata*.

A. Forewing with postmedial black spots above and below vein 4;

hindwing brown *basifurca*.

B. Forewing without postmedial black spots; hindwing yellowish .. *rostrata*.

(1) **DIOTA BASIFURCA**, Wlk. xxxii. 335 (1865).

Hab. **Cape Colony**. *Exp.* 40 mill.

(2)***DIOTA ROSTRATA**, Wllgrn. Wien. Ent. Mon. iv. p. 161 (1860).

Hab. **Cape Colony**. *Exp.* 30 mill.

GENUS DEILEMERA.

Type.

Deilemera, Hübn. Verz. p. 178 (1827) *evergista*.

Sect. I. Hind tibiæ of male very short, the spurs nearly as long as the tarsus, the terminal pair ending in some long hairs.

DEILEMERA LEUCONOE, Hopff. Monatsb. Akad. Bul., 1857, p. 422;
Peter's Reise Mossamb. v. p. 430, pl. 28, f. 3.

Leptosoma fuscipennis, Wllgrn. Wien. Ent. Mon. iv. p. 161 (1860).

Hab. **Abyssinia**; **Uganda**, Foda, Rusisi; **British East Africa**, Muthambi; **British Central Africa**, Nyasa, Zomba, Blantyre; **Mozambique**; **Delagoa Bay** (de Jersey); **Natal**, Durban (Trimen, Marshall, Leigh). *Exp.* 50-58 mill.

GENUS ALYTARCHIA.

Type.

Alytarchia, Wllgrn. Wien. Ent. Mon. vii. p. 147(1863) *amanda*.

Sect. I. Frons smooth; hindwing of male with the tornus produced to a point.

- (1) **ALYTARCHIA AMANDA**, Boisd. Delegorgue Voy. Afr. Austr. ii. p. 597 (1847).

Deiopeia cingulifera, Wlk. ii. 569 (1854).,, *ocellina*, Wlk. ii. 571 (1854).,, *albocincta*, Rambr. Cat. Lep. And. ii. p. 228 (1864).,, *serrata*, Mab. Le Nat. i. (3) p. 5 (1879).

Hab. **West Africa**, Niger, Congo; **Uganda**, Wadelai, Mulema, Wawamba Co; **British East Africa**, Machakos; **German East Africa**, Tanganyika; **British Central Africa**, Zomba, Fwambo; **Mashonaland**, Salisbury (Marshall); **Gazaland**, Chirinda (Marshall); **Zululand** (Angas); **Natal**, Malvern (Marshall), Durban (Gooch); **Madagascar**. *Exp.* 46-56 mill.

Sect. II. Frons clothed with rough hair; hindwing of male with the tornus rounded.

- (2) **ALYTARCHIA BELLATRIX**, Dalm. Anal. Ent. p. 50 (1823).

Euchelia pardalina, Herr.-Schäff. Aussereur. Schmett. f. 117 (1854).

Hab. **Uganda**, Toro; **British East Africa**, Kikuyu; **British Central Africa**, Blantyre; **Delagoa Bay** (Marshall); **Natal**, Karkloof (Marshall), Durban (Gooch, Leigh); **Cape Colony**, Grahamstown, Knysna (Trimen). *Exp.* 58-70 mill.

GENUS CALLIORATIS.

Type.

Callioratis, Feld. Reis. Nov. p. 2 (1874), non-deser. *abraxas*.

Proboscis fully developed; palpi porrect not reaching beyond the frons; antennæ almost simple; tibiae with the spurs short. Forewing with vein 3 from long before angle of cell; 5 from well above angle; 6 from well below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hindwing with vein 3 from long before angle of cell; 5 almost obsolete from middle of discocellulars; 7 from before upper angle; 8 approximated to cell to middle.

Sect. I. Forewing of male with the under side clothed with large whitish androconia, and a patch of fulvous androconia above and below base of vein 2; hindwing on upper side with a fringe of very long hair from subcostal nervure and vein 6 covering a patch of fulvous androconia in and below lower angle of cell; vein 1 with fringe of long hair, the inner area folded over on under side and the tornus produced to a point; the under side clothed with large whitish androconia.

(1) *CALLIORATIS ABRAXIS*, Feld. Reis. Nov. pl. 100, f. 17 (1874), ♂.

„ *boisduvalii*, Feld. Reis. Nov. pl. 100, f. 18 (1874), ♀.

Hab. Natal; Cape Colony, Bashee River (Trimen). *Exp.* 66 mill.

Sect. II. Wings of male normal.

(2) *CALLIORATIS MILLARI*, n. sp.

Head orange-red, third joint of palpi, lower part of frons and antennæ black; tegulæ orange-red, black at middle; patagia orange-red, the outer edge black; thorax black; fore coxæ in front orange-red; abdomen black with six orange-red bands extending to sub-lateral area and the last band entire, the extremity orange, the anal tuft of male black. Forewing orange-red, the base blue-black with oblique sinuous outer edge and band of whitish scales on it; an oblique sinuous black antemedial band with band of whitish scales on it; an oblique black bar from costa to just below angle of cell; a postmedial black band with band of whitish scales on it, dilated towards costa, oblique to vein 6, then its outer edge produced to five small dentitions and bent outwards to tornus; a series of black spots on termen and cilia, conjoined into a band from apex to vein 6. Hindwing orange-red, the extreme base and basal third of inner area black; an elliptical discoidal spot; a curved postmedial band with waved edges; six spots on termen and cilia; the under side with black fascia on costa to near middle except at base.

Hab. Natal, 2,500 ft. (A. D. Millar), 1 ♂, 1 ♀ type. *Exp.* ♂ 68 ♀ 72 mill.

SUPPLEMENT.

SYNTOMIDÆ.

- (3a) SYNTOMIS ENDOCROSSIS, Hmps. A.M.N.H. (7) xi. p. 338 (1903).
Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* 40 mill.
- (2) EPITOXIS NIGRA, Hmps. A.M.N.H. (7) xi. p. 239 (1903).
Hab. **Gazaland**, Mt. Chirinda (Marshall). *Exp.* 32 mill.
- (1a) METARCTIA BURRA, Schaus Lep. S. Leone, p. 23, pl. 1, f. 6 (1893).
Hab. **Sierra Leone; Congo; British East Africa**, M'gana;
Mashonaland, Salisbury (Marshall). *Exp.* 40 mill.
- (1b) METARCTIA RUBRIPUNCTA, Hmps. Cat. Lep. Phal. B.M. 1,
p. 147, pl. v. f. 4 (1898).
Hab. **West Africa**, Gaboon, Congo; **Abyssinia**, Zegi Tsana;
British East Africa, Ruwenzori; **Mashonaland**, Salisbury
(Marshall). *Exp.* 52 mill.
- (2a) METARCTIA BENITENSIS, Holl. Psyche vi. p. 395 (1893).
Hab. **West Africa**, Cameroons, Benita; **Basutoland**, Maseru
(Crawshay). *Exp.* ♂ 30, ♀ 42 mill.

ARCTIADÆ.

NOLINÆ.

GENUS RÆSELIA.

Type.

Ræselia, Hübn. Verz. p. 397 (1827) *togatulalis*.

RÆSELIA INFUSCATA, Hmps. A.M.N.H. (7) xi. p. 342 (1903).
Hab. **Mashonaland**, Umtali (Marshall). *Exp.* 22 mill.

LITHOSIANÆ.

- (3) *PHRYGANOPSIS ATRESCENS*, Hmps. A.M.N.H. (7) xi. p. 343 (1903).
Hab. **Cape Colony**, Grahamstown. *Exp.* 22 mill.
- (2) *MACROSIA CHALYBEATA*, Hmps. A.M.N.H. (7) viii. p. 179 (1901).
Hab. **British East Africa**, Eb Urru; **Mashonaland**, Salisbury (Marshall). *Exp.* 42 mill.
- (5a) *ILEMA SANGUICOSTA*, Hmps. A.M.N.H. (7) viii. p. 181 (1901).
Hab. **British East Africa**, Uganda Railway; **Mashonaland**, Salisbury (Marshall). *Exp.* ♂ 46, ♀ 36 mill.

GENUS MICRILEMA.

- Micrilema*, Hmps. A.M.N.H. (7) xi. p. 343 (1903) *craushayi*. Type.
- MICRILEMA CRAUSHAYI*, Hmps. A.M.N.H. (7) xi. p. 343 (1903).
Hab. **Basutoland**, Machacha, 10,000 ft. (Crawshay). *Exp.* 20 mill.

GENUS ANAPHOSIA.

- Anaphosia*, Hmps. A.M.N.H. (7) xi. p. 344 (1903) *cyanogramma*. Type.
- ANAPHOSIA CYANOGRAMMA*, Hmps. A.M.N.H. (7) xi. p. 344 (1903).
Hab. **Mashonaland**, Mpodzi River (Marshall). *Exp.* 40 mill.
- (1a) *CHIONÆMA CAPENSIS*, Hmps. A.M.N.H. (7) xi. p. 347 (1903).
Hab. **Cape Colony**, Grahamstown. *Exp.* 22 mill.
- (2) *EUROSIA FULIGINEA*, Hmps. A.M.N.H. (7) xi. p. 347 (1903).
Hab. **Natal**, Durban (Leigh); **Cape Colony**, Annshaw (Miss F. Barrett). *Exp.* 18 mill.

GENUS OPSAROA.

- Opsaroa*, Hmps. A.M.N.H. (7) xv. p. 437 (1905) *fulvinota*. Type.
- OPSAROA FULVINOTA*, Hmps. A.M.N.H. (7) xv. p. 437 (1905).
Hab. **Cape Colony**, Triangle. *Exp.* 22-24 mill.

ARCTIANÆ.

GENUS PHRAGMATOBIA.

Type.

Phragmatobia, Steph. Ill. Brit. Ent. Haust.ii. p. 73 (1828) *fuliginosa*.

PHRAGMATOBIA PARVULA, Feld. Reis. Nov. pl. 100, f. 24 (1874).

Hab. **Cape Colony**, Hout Bay Road. *Exp.* 28 mill. The locality "N.W. Himalayas" is an error.

- (1a) DIACRISIA PUNCTULATA, Wllgrn. Wien. Ent. Mon. iv. p. 161 (1860).

Spilosoma auricinctum, Butl. P.Z.S., 1896, p. 847, pl. 42, f. 6.*Hab.* **British Central Africa**, Nyasaland; **Mashonaland**, Salisbury (Marshall). *Exp.* 48 mill.

- (14) DIACRISIA EURYPHLEBIA, Hmps. A.M.N.H. (7) xi. p. 351 (1903).

Hab. **Zululand**, Lower Tugela (Reynolds). *Exp.* 38 mill.

- (3) AMSACTA GRAMMIPHLEBIA, Hmps. Cat. Lep. Phal. B.M. iii. p. 323, pl. 46, f. 4 (1901).

Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* 50 mill.

GENUS HYPHANTRIA.

Type.

Hyphantria, Harr. Ins. Mass. p. 255 (1841) ... *cunea*.

HYPHANTRIA STRIGULOSA, Hmps. A.M.N.H. (7) viii. p. 185 (1901).

Hab. **Natal**. *Exp.* 40 mill.

- (2a) ESTIGMENA GYNEPHEA, Hmps. A.M.N.H. (7) viii. p. 185 (1901).

Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* ♂ 36, ♀ 38 mill.

- (2)*PROCANTHIA DISTANTI, Dewitz. Verh. L.C. Acad. xlii. p. 68, pl. 3, f. 7 (1881).

Hab. **Cape Colony**.

AGARISTIDÆ.

Paida gordonii is the female of PAIDA PULCHRA.

- (1a) ÆGOCERA LATREILLI, Herr.-Schäff. Aussereur. Schmett. f. 19 (1853).

- Hab.* **Senegambia**, Casamanca ; **British Central Africa**, Zomba ;
Matabeleland, Umfuli River (Marshall). *Exp.* 50 mill.
Ægacera tricolor is a variety of *Æ. TRIMENTI*.
PAIS DECORA, insert (syn) *Pais moldenkii* Dew.

GENUS OMPHALOCEPS.

Type.

Omphaloceps, Hmps. Cat. Lep. Phal.

B.M. iii. p. 628 (1901) *triangularis*.

OMPHALOCEPS DARIA, Druce, A.M.N.H. (6) xv. p. 42 (1895).

Ægocera triplagiata, Roths. Nov. Zool. iii. p. 95 (1896).

„ „ var. *dispar*, Kirby A.M.N.H. (6) xviii.
 p. 377, pl. xix. f. 1 (1896).

Mitrophrys meraca, Karsch, Ent. Nachr. xxiv. p. 332 (1898).

Hab. **East Africa** Lindi ; **Zambesia**, Loangwa River, M'pta ;
German South-West Africa. *Exp.* 54-68 mill.

NOCTUIDÆ.

AGROTINÆ.

- (2) RAGHUYA STIGMATIA, Hmps. Cat. Lep. Phal. B.M. iv. p. 29
 (1903).

Hab. **Basutoland**, Maseru (Crawshay) ; **Cape Colony**, Transkei
 (Miss F. Barrett). *Exp.* 30 mill.

- (3)*TIMORA TRANSVALICA, Dist. Entom. 1902, p. 212 ; Hmps. Cat.
 Lep. Phal. B.M. iv. p. 114, pl. 58, f. 12.

Hab. **Transvaal**, Johannesburg. *Exp.* 32 mill.

GENUS POROSAGROTIS.

Type.

Porosagrotis, Smith, Bull. U.S. Nat. Mus. 38,

p. 123 (1890) *vetusta*.

POROSAGROTIS CAFFRA, Hmps. Cat. Lep. Phal. B.M. iv. p. 658,
 pl. 77, f. 29 (1903).

Hab. **Natal**, Mooi River. *Exp.* 40 mill

GENUS MICRAGROTIS.

Type

Micragrotis, Hmps. Cat. Lep. Phal. B.M. iv.

p. 148 (1903) *axylides*.

- (1) *MICRAGROTIS EXUSTA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 149, pl. 60, f. 1 (1903).
Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* 34 mill.
- (2) *MICRAGROTIS RUFESCENS*, Hmps. Cat. Lep. Phal. B.M. iv. p. 152, pl. 60, f. 2 (1903).
Hab. **Cape Colony**, Annshaw (Miss F. Barrett), Bushman Lake (Alston). *Exp.* 36 mill.
- (3) *MICRAGROTIS MICROSTIGMA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 659, pl. 78, f. 10 (1903).
Hab. **Mashonaland**, Salisbury (Dobbie). *Exp.* 16 mill.
- (4) *MICRAGROTIS PROSARCA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 659, pl. 78, f. 11 (1903).
Hab. **Mashonaland**, Salisbury (Dobbie). *Exp.* 26 mill.

GENUS EUXOA.

Euxoa, Hübn. Verz. p. 209 (1827) Type.
decora.

- (1) *EUXOA LONGIDENTIFERA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 166, pl. 60, f. 10 (1903).
Hab. **British East Africa**, Muthambi, Machakos, Kikuyu; **Mashonaland**, Salisbury (Marshall); **Natal**, Estcourt (Hutchinson), Durban (Gooch); **Basutoland**, Maseru (Crawshay); **Madagascar**, Diego-Suarez. *Exp.* ♂ 34, ♀ 40 mill.
- (2) *EUXOA RUFOMIXTA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 661, pl. 78, f. 14 (1903).
Hab. **Cape Colony**, Kokstad (Mrs. Pringle). *Exp.* 30 mill.
- (3) *AGROTIS YPSILON*, Rott. Naturf. ix. p. 141 (1776).
Hab. **North and South America**; **Europe**; **Egypt**; **Natal**, Estcourt (Hutchinson); **West Asia**; **Japan**; **China**; **India**; **Ceylon**, **Java**; **Queensland**; **New Zealand**; **Hawaii**. *Exp.* 40-50 mill.
- (4) *EUXOA RUFICEPS*, Hmps. Cat. Lep. Phal. B.M. iv. p. 661, pl. 78, f. 12 (1903).
Hab. **Mashonaland**, Salisbury (Dobbie). *Exp.* 36 mill.
- (5) *EUXOA PRONYCTA*, Hmps. Cat. Lep. Phal. B.M. iv. p. 324, pl. 67, f. 14 (1903).

Hab. **Mashonaland**, Salisbury (Marshall), Umtali (Marshall).

Exp. 32 mill.

- (6) **EUXOA EPIPIRYIA**, Hmps. Cat. Lep. Phal. B.M. iv. p. 325, pl. 67, f. 17 (1903).

Hab. **British East Africa**, Athi-ya-Mawe; **Mashonaland**, Salisbury (Marshall). *Exp.* 30-32 mill.

- (19a) **AGROTIS ANNULARIS**, Saalm. Lep. Madag. p. 265 (1891).

Agrotis transjecta, Dist. A.M.N.H. (7) i. p. 220 (1898).

Hab. **Mashonaland**, Salisbury (Marshall); **Transvaal**, Pretoria; **Madagascar**, Betsileo. *Exp.* 24-28 mill.

- (19b) **AGROTIS ECSTRIGATA**, Hmps. Cat. Lep. Phal. B.M. iv. p. 662, pl. 78, f. 13 (1903).

Hab. **Mashonaland**, Salisbury (Dobbie). *Exp.* 28 mill.

GENUS LYCOPHOTIA.

Lycophotia, Hübn. Verz. p. 215 (1827) ... *porphyria*.
Type.

LYCOPHOTIA ECVINACEA, Hmps. Cat. Lep. Phal. B.M. iv. p. 663, pl. 78, f. 15 (1903).

Hab. **Cape Colony**, Kokstad (Mrs. Pringle). *Exp.* 36 mill.

HADENINÆ.

GENUS CRATERESTRA.

Craterestra, Hmps. Cat. Lep. Phal. B.M. v. p. 17 (1905) ...
Type.
... .. *lucina*.

CRATERESTRA MEDIA, Wlk. xi. 756 (1857); Hmps. Moths Ind. ii. p. 199; id. Cat. Lep. Phal. B.M. v. p. 19, pl. 78, f. 28.

Hab. **Mashonaland**, Salisbury (Marshall); **India**; **Burma**.
Exp. 34-36 mill.

GENUS POLIA.

Polia, Ochs. Schmett. Eur. iv. p. 73 (1816), non
deser.; Treit. Schmett. Eur. v. (2), p. 5 (1825) ...
Type.
Manestra, Ochs. Schmett. Eur. iv. p. 75 (1816),
non deser.; Treit. Schmett. Eur. v. (2), p. 127
... .. *pisi*.
(1825)

- (7a) *POLIA FUSCIRUFA*, Hmps. Cat. Lep. Phal. B.M. v. p. 103, pl. 81, f. 4 (1905).
Hab. **British East Africa**, Athi-ya-Mawe, Kikuyu, Machakos, Quaso, Eb Urru; **Mashonaland**, Salisbury (Marshall). *Exp.* 36–38 mill.
- (7b) *POLIA CUPRESCENS*, Hmps. Cat. Lep. Phal. B.M. v. p. 163, pl. 82, f. 32 (1905).
Hab. **Mashonaland**, Salisbury (Marshall). *Exp.* 34 mill.
- (1a) *ASPIDIFRONTIA GLAUDESCENS*, Hmps. Cat. Lep. Phal. B.M. v. p. 451, pl. 91, f. 5 (1905).
Hab. **Mashonaland**, Salisbury (Marshall, Dobbie). *Exp.* 34 mill.

GENUS CIRPHIS.

Type.

Cirphis, Wlk. xxxii. 622 (1865)... .. *costalis*.

- (1) *CIRPHIS PROMINENS*, Wlk. ix. 102 (1856).
Leucania hispanica, Bell. Ann. Soc. Ent. Fr. 1863, p. 421, pl. 9, f. 5.
Hab. **Spain; Algeria; West Africa**, Nigeria, Congo; **British East Africa**, Kikuyu; **Mashonaland** (Dobbie). *Exp.* 28–36 mill.
- (2) *CIRPHIS POLYRABDA*, Hmps. Cat. Lep. Phal. B.M. v. p. 507, pl. 92, f. 13 (1905).
Leucania albicosta, Hmps. Ann. S. Afr. Mus. ii. p. 273 (1902), nec Moore.
Hab. **Natal**, Estcourt (Hutchinson). *Exp.* 38 mill.
- (3) *CIRPHIS ATRINOTA*, Hmps. Cat. Lep. Phal. B.M. v. p. 523, pl. 92, f. 25 (1905).
Hab. **Mashonaland**, Salisbury (Marshall, Dobbie). *Exp.* 30 mill.
- (4) *CIRPHIS INSULICOLA*, Guen. Noct. i. p. 82 (1852).
Leucania simplaria, Saalm. Lep. Madag. p. 252, f. 160 (1891).
Hab. **West Africa**, Sierra Leone, Gambia, Nigeria; **Natal**, Durban (Gooch); **Madagascar; Bourbon**. *Exp.* 34–36 mill.
- (5) *CIRPHIS LEUCOSTICHA*, Hmps. Cat. Lep. Phal. B.M. v. p. 541 (1905).

Leucania insulicola, Saalm. Lep. Madag. p. 254, f. 181 (1891), nec Guen.

Hab. **British East Africa**, Eb Urru; **Natal**, Durban (Gooch, Leigh); **Mauritius**. *Exp.* 36 mill.

GENUS BOROLIA.

Borolia, Moore, P.Z.S. 1881, p. 334 Type.
fasciata.

- (1) *BOROLIA MELIANOIDES*, Möschl. Verh. z-b. Wien, xxxiii. p. 291, pl. xvi. f. 4 (1884).

Hab. **Abyssinia**, Zegi Tsana; **British East Africa**, Eb Urru, Machakos, Nairova; **Mashonaland** (Dobbie); **Natal**, Estcourt (Hutchinson); **Cape Colony**, Transkei (Miss F. Barrett), Annshaw (Miss F. Barrett); **Madagascar**, Betsileo. *Exp.* 34-36 mill.

- (2) *BOROLIA RUBRESCENS*, Hmps. Cat. Lep. Phal. B.M. v. p. 563, pl. 94, f. 25 (1905).

Hab. **Natal**, Estcourt (Hutchinson). *Exp.* 38 mill.

- (3) *BOROLIA MELANOSTROTA*, Hmps. Cat. Lep. Phal. B.M. v. p. 564, pl. 94, f. 28 (1905).

Hab. **Zululand**, Lower Tugela (Reynolds); **Natal**, Weenen; **Cape Colony**, Transkei (Miss F. Barrett). *Exp.* 32-36 mill.

- (4) *BOROLIA PHEOCHROA*, Hmps. Cat. Lep. Phal. B.M. v. p. 572, pl. 95, f. 9 (1905).

Hab. **Natal**, Estcourt (Hutchinson); **Cape Colony**, Annshaw (Miss F. Barrett), Kokstad (Mrs. Pringle). *Exp.* 34-38 mill.

- (5) *BOROLIA PERSECTA*, Hmps. Cat. Lep. Phal. B.M. v. p. 574, pl. 95, f. 12 (1905).

Hab. **Natal**, Estcourt (Hutchinson). *Exp.* 34 mill.

- (6) *BOROLIA MICROPIS*, Hmps. Cat. Lep. Phal. B.M. v. p. 574, pl. 95, f. 14 (1905).

Hab. **Mashonaland**, Salisbury (Marshall, Dobbie). *Exp.* 28 mill.

- (7) *BOROLIA CUPREATA*, Hmps. Cat. Lep. Phal. B.M. v. p. 575, pl. 95, f. 15 (1905).

Hab. **Gazaland**, Chirinda Forest (Marshall). *Exp.* 38 mill.

CUCULLIANÆ.

(1a) *HELIOPHOBUS LEUCOGONIA*, n. sp.

♂. Head and thorax dark reddish brown mixed with greyish; antennæ ochreous white; abdomen reddish brown. Forewing red-brown with some greyish irroration, the veins darker; the basal half from cell to inner margin yellowish irrorated with rufous; a comma-shaped white mark in cell near base; a dark medial line angled in submedian fold, then oblique; an elliptical white spot on end of median nervure conjoined or nearly conjoined to a white discoidal bar, constricted at middle; an obliquely curved postmedial line bent inwards to costa and placed unusually near termen; a dark terminal line. Hindwing white, the costal area tinged with rufous; a brown discoidal spot, curved postmedial line and fine terminal line.

Hab. **Mashonaland** (Dobbie). *Exp.* 32 mill. Type in B.M.

ACRONYCTINÆ.

GENUS *PROCRATERIA*, nov.

Type *P. noloides*.

Proboscis fully developed; palpi porrect extending to well beyond frons, which has a large truncate conical prominence with raised rim and a corneous plate below it; antennæ of female ciliated, head and thorax clothed with scales, the pro- and meta-thorax with spreading crests; abdomen with dorsal crest on basal segment. Forewing with veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3, 4 from angle of cell; 5 obsolescent from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

PROCRATERIA NOLOIDES, n. sp.

♀. Head, tegulæ, and prothoracic crest black pencilled with dark grey; thorax grey; legs suffused with fuscous; abdomen grey irrorated with fuscous. Forewing grey-white irrorated with fuscous, a large triangular black patch on basal part of costa extending to the indistinct whitish antemedial line which is bent outwards at median nervure, then oblique; orbicular and reniform small, indistinctly defined by fuscous, the former round; the veins of terminal half streaked with black; traces of a very highly dentate postmedial line produced to a series of black and white points on the veins, very

oblique from costa to vein 6 and with some fiery red scales on it, a large black patch on costa from it to apex, its lower edge irregularly rounded and attenuate at extremities; subterminal line represented by some fiery red points on the veins; cilia grey and fiery red. Hindwing whitish suffused with fuscous; the under side with indistinct discoidal spot and curved postmedial line.

Hab. **Mashonaland** (Dobbie). *Exp.* 36 mill. Type in B.M.

(1a) **CONSERVULA CRAUSHAYI**, n. sp.

♂. Antennæ with uniseriate dentitions. Head and thorax ochreous whitish mixed with rufous; abdomen ochreous tinged with yellow-brown. Forewing ochreous whitish with golden-brown markings; the basal area traversed by streaks in cell, submedian fold and on vein 1; the antemedial line double, angled outwards below costa and inwards in cell, then sinuous; orbicular and reniform slightly defined by brown, the former small, round, the latter large, irregular, pointed above and somewhat excised on inner side, with some fuscous in it at lower angle of cell; an oblique waved line from lower angle of cell to inner margin; the postmedial line double with some golden-brown suffusion on each side of it, arising near apex, obliquely curved to vein 2 then nearly erect; a slightly waved terminal line; cilia brown at tips. Hindwing pale suffused with fuscous; the under side whitish irrorated with fuscous, with dark discoidal spot and oblique postmedial line excurved below costa.

Hab. **Basutoland**, Mahalishoek (Crawshay). *Exp.* 30 mill. Type in B.M.

(4) **ACRAPEX CARNEA**, n. sp.

♂. Head and tegulæ fuscous mixed with grey; thorax flesh-coloured; abdomen ochreous. Forewing flesh-colour; an ochreous fascia in cell bent upwards at extremity to below apex; the veins of costal area with slight pale streaks; a diffused fuscous streak on median nervure; a black point at upper angle of cell and others just before and beyond lower angle; a diffused ochreous fascia in submedian interspace and above vein 2 to near termen; a slight terminal series of black points; cilia brownish with slight pale line through them. Hindwing pale fuscous, the cilia paler.

Hab. **Basutoland**, Machacha (Crawshay). *Exp.* 30 mill. Type in B.M.

EUTELIANÆ.

(5a) EUTELIA LEIGHI, n. sp.

♂. Head whitish, the base of palpi and tufts on basal joints of antennæ purple-brown; tegulæ and thorax in front purple-brown, the former with white medial line and white tips, mesothorax fuscous and white, metathorax pale brown and white; pectus and legs white, the former crimson in front, the latter with black bands; abdomen blackish with paired dorsal whitish marks on basal segments, the dorsal crests and anal tuft rufous, the ventral surface whitish, rufous towards extremity. Forewing whitish slightly tinged with pink and with olive-green on costal area; a curved red-brown subbasal line from costa to submedian fold; antemedial line double, the inner red-brown, the outer black, excurved at middle; medial area with some red-brown suffusion below the cell; orbicular and reniform red-brown with ill-defined white annuli and both defined by a sinuous red-brown line below; a medial line angled at middle, then oblique; a black streak from reniform to postmedial line which is oblique from costa to vein 6, angled inwards in discal fold and outwards at vein 4, then oblique and irregularly dentate, an oblique fuscous fascia from it to termen below middle and some white points beyond it on costa; an indistinct dentate subterminal line, incurved and defined by fuscous towards inner margin; a terminal series of small lunules; cilia pale rufous. Hindwing whitish with fuscous suffusion in cell and pink beyond it; indistinct minutely waved medial and postmedial lines; terminal area fuscous, narrowing and with white line on it towards tornus; cilia rufous with white line at base; the under side irrorated with fuscous and red, a black discoidal lunule, the lines more prominent.

Hab. Natal, Durban (Leigh). *Exp.* 30 mill. Type in B.M.

(11a) EUTELIA DISCISTRIGA, Wlk. xxxiii. 823 (1865).

Hab. British East Africa, Athi-ya-Mawe, Machakos, Neugia, Taru, Takaunga; Natal, Durban (Leigh); Arabia, Sheik Otthman, Aden; India, Sind, Nilgiris; Ceylon. *Exp.* 34 mill.

SARROTHRIPINÆ.

GENUS SARROTHRIPA.

Sarrothripa, Curt. Brit Ent. i. fig. 29 (1824)... *Type.* *revayana*.

Proboscis fully developed; palpi very long, obliquely porrect and thickly scaled; antennæ of male minutely ciliated; forelegs with the

femora and tibiae fringed with long hair. Forewing with veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hindwing with veins 3, 4 stalked or from angle; 5 from or from above angle; 8 anastomosing with the cell before middle.

SARROTHRIPA RUFIMEDIA, n. sp.

♀. Head and thorax grey mixed with black; pectus, legs, and abdomen brownish white, the last dorsally tinged with fuscous. Forewing grey irrorated with black; a double irregularly waved subbasal black line from costa to vein 1; a double irregularly waved antemedial line angled outwards on median nervure and above inner margin and emitting a slight streak in submedian fold; a large pale rufous patch in, below, and beyond lower angle of cell with the brown-outlined reniform on it; a double waved postmedial line obsolete on costal area, angled inwards on vein 2 and outwards in submedian fold, placed near the strong black subterminal line which is angled inwards below costa, outwards at vein 7, and excurved at middle. Hindwing semihyaline white, the veins towards termen tinged with fuscous; the termen fuscous, expanding on apical area; cilia of apical half blackish except at tips.

Hab. **Rhodesia**, Bulawayo (Eyles). *Exp.* 32 mill. Type in B.M.

ACONTIANÆ.

(3) **NEAXESTIS RHODA, n. sp.** -

Head and thorax bright rufous tinged with crimson in front; palpi, pectus, and legs white, the forelegs rufous in front with white rings on tarsi; abdomen white dorsally tinged with fuscous. Forewing bright rufous sometimes tinged with crimson and with slight dark irroration; antemedial line dark, obliquely curved; a slight dark discoidal spot; postmedial line oblique from costa to vein 6 where it is obtusely angled, then inwardly oblique and slightly sinuous. Hindwing semihyaline white, the termen and cilia tinged with yellow. Under side of forewing with the disk tinged with fuscous in female.

Hab. **Rhodesia**, Bulawayo (Eyles). *Exp.* 28 mill. Type in B.M.

(3) **ERIZADA ALBIVENA, n. sp.**

♂. Head and thorax grey-white, the scales pencilled with red-brown; palpi brown; tarsi banded with black; abdomen whitish. Forewing grey-white, the scales pencilled with red-brown and the

terminal area suffused with brown, a few large black scales scattered over the wing; the veins streaked with white; the costal edge pale rufous; a rather indistinct sinuous antemedial brown line incurved in cell; orbicular and reniform small, deep black with whitish annuli, the former round, the latter elliptical; medial line brown, obliquely excurved from costa to vein 4, then oblique and sinuous; postmedial line formed of black striæ defined by white on outer side, excurved from costa to vein 4, then rather oblique and sinuous; an indistinct minutely dentate whitish subterminal line; a rufous terminal line. Hindwing yellowish white clouded with brown from near base to termen; an indistinct curved postmedial line.

Hab. Zululand, Lower Tugela (Reynolds). 1 ♂ type. *Exp.* 34 mill.

CATOCALINÆ.

(1a) HOMOPTERA VARIEGATA, n. sp.

♂. Head and thorax black-brown, slightly irrorated with grey and ochreous, some ochreous on frons, behind the tegulæ, and on metathorax; abdomen fuscous. Forewing rufous suffused and irrorated with black; a fine white streak on median nervure; a white point at base below cell; subbasal line black defined by white on outer side, from costa to submedian fold; antemedial line black, slightly defined on each side by whitish, angled outwards below costa and inwards on median nervure and vein 1; reniform rather small, black, embraced by a hoop-shaped mark from costa to below cell defined by a sinuous black line on a whitish line; postmedial line black slightly defined by white on outer side, angled slightly inwards below costa, outwards at discal fold, then oblique and crenulate and with a diffused black shade before it, a slight ochreous streak before it below discal fold and a prominent one beyond it above the fold; subterminal line interrupted, whitish, angled outwards at vein 7 and inwards at discal and submedian folds, with some black streaks before it at middle and a whitish patch above vein 1; a terminal series of black and white points; cilia black with white patch below apex. Hindwing fuscous black; cilia with fine pale line at base and white tips; the under side with the costal and terminal areas irrorated with grey, a small discoidal spot, curved medial and postmedial dark lines and sinuous whitish subterminal line.

Hab. Cape Colony, Transkei (Miss F. Barrett). *Exp.* 64 mill. Type in B.M.

(6a)**AUDEA SUBLIGATA*, Dist. Entom. 1902, p. 212.

Hab. **Transvaal.** *Exp.* 40 mill.

(1a)**CHALCIOPE PRETORIÆ*, Dist. Entom. 1902, p. 212.

Hab. **Transvaal**, Pretoria. *Exp.* 60 mill.

(27b) *OPHIUSA MELACONISIA*, n. sp.

♂. Head and thorax clothed with grey and brown scales with some large black scales mixed; abdomen grey irrorated with brown. Forewing grey very thickly and finely striated with brown and irrorated with some large black-tipped white scales; the veins white; subbasal line white, oblique, from costa to submedian fold; ante-medial line white defined by brown on inner side, oblique and slightly excurved below costa; orbicular and reniform elliptical, black defined by white; postmedial line white defined by brown on outer side, excurved from just below costa to vein 4, then incurved, slightly excurved again above inner margin; subterminal line whitish defined on each side by red-brown, some black marks on its inner side below costa, slightly excurved below vein 7, then nearly straight; a fine crenulate red-brown line just before termen; a fine whitish line at base of cilia. Hindwing ochreous suffused with brown, the terminal area suffused with fuscous; a dark terminal line, the cilia pale. Under side of both wings whitish, the terminal areas suffused with fuscous; forewing with the dark orbicular and reniform showing.

Hab. **Mashonaland**, Salisbury (Dobbie). *Exp.* 46 mill. Type in B.M.

GENUS EGYBOLIS.

Type.

Caloptera, Blanch. Hist. Ins. ii. p. 363

(1845), nec Guér. Dipt. 1830 *vaillantina*.

Egybolis, Bois d. Delegorgue Voy. Afr. Austr.

ii. p. 595 (1847) *vaillantina*.

EGYBOLIS VAILLANTINA, Stoll, Suppl. Cram. pl. 31, f. 3 (1790);

Saund. Trans. Ent. Soc. (2) iv. p. 59, pl. 14, f. 3 *a-c*; Ang. Kaff.

Illustr. pl. 30, f. 19; *larva*, Fawcett, Tr. Zool. Soc. xvii. p. 282, pl. viii. ff. 13, 14.

Caloptera formosa, Blanch. Hist. Ins. ii. p. 376, pl. 17, f. 6 (1845).

Egybolis natalii, Boisd. Delegorgue, Voy. Afr. Austr. ii. p. 595 (1847).

Hab. **Uganda; Zanzibar; British Central Africa**, Blantyre, Nyasa; **Delagoa Bay** (Kenrick); **Zululand** (Angas); **Natal**, Durban (Gooch, Leigh). *Exp.* 52-66 mill.

PLUSIANÆ.

(2a) *PLUSIA CONFUSA*, Moore, Lep. Atk. p. 149 (1888).

Hab. Natal, Durban (Leigh); India, Sikhim, Nilgiris; Ceylon.

Exp. 42 mill.

NOCTUINÆ.

(1a) *CATEPHIA DIPLOGRAMMA*, n. sp.

♂. Head and thorax reddish brown mixed with black; abdomen greyish suffused with brown, the dorsal crests black. Forewing grey with a purplish tinge, suffused and irrorated with fuscous; subbasal line black, oblique towards costa, strongly excurved at median nervure and ending at vein 1; antemedial line double, slightly waved, oblique from costa to submedian fold, then strongly incurved; reniform defined by black; postmedial line double, angled slightly outwards at veins 6 and 4, then incurved, waved and angled upwards in submedian fold to near antemedial line; subterminal line indistinct, pale defined by fuscous, curved, slightly angled outwards at vein 7 and excurved at middle; the veins streaked with black towards termen; a fine black terminal line. Hindwing white, the veins brownish; a black-brown patch at tornus crossed by a pale striga; the under side with discoidal point and postmedial series of strigæ on the veins.

♀. Hindwing with the whole terminal area pale brown.

Hab. Transvaal, Potchefstroom District (Ayres), Lydenberg District (Ayres). *Exp.* 38 mill. Type in B.M.

(5a) *CATEPHIA BARRETTE*, n. sp.

♂. Head and thorax dark reddish brown, the scales slightly tipped with grey; abdomen grey-brown. Forewing dark reddish brown slightly irrorated with grey, the terminal area paler; the subbasal line indistinct, slightly angled outwards below costa and ending at submedian fold; an oblique black mark on inner margin before middle; the antemedial line indistinct, slightly angled outwards below costa and on median nervure, then incurved and bent outwards again at vein 1; claviform represented by an obscure dark patch; orbicular round, grey defined by brown; reniform elliptical, defined by brown and grey; some grey points on costa towards apex; postmedial line brown defined by grey on inner side, bent outwards below costa, excurved and sinuous to vein 4, then bent inwards and oblique; a small triangular blackish mark from costa

before apex with one or two points below it. Hindwing white, the costal area and terminal half blackish; the under side with the costal area irrorated with grey, a blackish discoidal spot.

Hab. **Cape Colony**, Transkei (Miss F. Barrett). *Exp.* 38 mill. Type in B.M.

GENUS COPIFRONTIA, nov.

Type *C. xantherythra*.

Proboscis fully developed; palpi obliquely upturned, the second joint slender and smoothly sealed, the third moderate; frons with vertical ridge-shaped process; eyes smooth, not ciliated; antennæ of male serrate and ciliated; head and thorax clothed with hair and scales mixed, the latter with rather ridge-shaped dorsal crest; hind tibiæ fringed with hair on both sides, the inner spurs very long; abdomen with dorsal crest at base only. Forewing with the termen obliquely curved and the inner margin rounded; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hindwing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

COPIFRONTIA XANTHERYTHRA, n. sp.

♂. Head and thorax bright yellow, palpi above, frons and patches on tegulæ, patagia and dorsum of thorax purplish red; antennæ fulvous; abdomen ochreous yellow. Forewing bright yellow; a subbasal purple-red band with the scales pale-tipped, broad and oblique from costa to below cell, then narrowing, with waved edges and not quite reaching inner margin; an antemedial series of small spots, oblique from costa to vein 1, where it is angled and has a small spot before it; orbicular a purplish red annulus connected with a large patch from just below costa expanding in, beyond, and below end of cell, leaving a yellow line on discocellulars and connected with inner margin by some small spots; two postmedial series of small spots from costa to vein 6, the postmedial line only traceable on the purple-red area where it is fine, yellow, and obliquely incurved; the terminal area purple-red except at apex, conjoined between veins 5 and 2 with the medial patch; the subterminal line fine, yellow, waved, dentate inwards on the veins and connected with termen by slight streaks above and below vein 6 and in submedian fold. Hindwing yellowish white.

Hab. **Mashonaland** (Dobbie). *Exp.* 46 mill. Type in B.M.

GENUS PLATYJA.

Platyja, Hübn. Verz. p. 268 (1827) Type.
After *Calesia*. *unminea*.

PLATYJA PHEOPHÆNICA, n. sp.

♀. Fuscous brown slightly irrorated with bluish white and suffused with purple; palpi white at tips; tarsi with white rings. Forewing with slight interrupted waved white subbasal line from costa to submedian fold; a sinuous rufous antemedial line with white points at costa and veins; a slight discoidal point; a waved rufous postmedial line with white points on it at the veins, slightly excurved from costa to below vein 2 and expanding into a band with waved edges beyond the cell, retracted from below vein 2 to lower angle of cell, and enclosing in its sinus a greenish white figure-of-8-shaped spot, then erect to inner margin; a small subterminal white spot on vein 6 with an oblique striga above it; a series of white points on costa towards apex and termen. Hindwing with waved postmedial rufous line with series of white points on it, obsolescent towards costa; a terminal series of white points.

Hab. Natal, Durban (Leigh). *Exp.* 52 mill. Type in B.M.

(2a) ACANTHOLIPES LOXIA, n. sp.

♂. Ochreous white; palpi tinged with fuscous at sides; head, thorax, and abdomen sparsely irrorated with black. Forewing irrorated with brown and blackish; two indistinct oblique antemedial lines from cell to inner margin; black points at middle of cell and on discocellulars; an oblique black band from just beyond lower angle of cell to middle of inner margin; an indistinct oblique postmedial line; subterminal line arising from apex and slightly incurved, whitish defined by an indistinct line on inner side and strongly by black on outer; a terminal punctiform line. Hindwing whitish with oblique medial dark bar from cell to submedian fold; a subterminal band from vein 7 to tornus; a terminal punctiform line; the under side irrorated with brown, a discoidal spot, an oblique postmedial line obsolete towards costa and inner margin, a somewhat incurved subterminal band.

Hab. Natal, Durban (Leigh). *Exp.* 24 mill. Type in B.M.

ERASTRIANÆ.

(4a) MEGALODES XANTHIA, n. sp.

Yellow with a slight olive tinge; head and thorax slightly tinged with rufous and with a few black scales; tibiæ and tarsi banded with

brown. Forewing irrorated with a few rufous scales; subbasal line indistinct, curved from costa to submedian fold; antemedial line rather indistinct, angled outwards in interspaces; the cell and area beyond and just below it suffused with dark reddish-brown, on medial area, a patch also on vein 1, the orbicular and reniform remaining yellow, the former round; postmedial line dentate, strongly bent outwards below costa and very strongly incurved below vein 4; some yellow points on costa beyond it; subterminal line only defined by a somewhat dentate rufous line on its inner side, angled outwards at vein 7 and somewhat dentate at veins 3, 4; a terminal series of dark striæ; cilia chequered yellow and brown. Hindwing rather paler yellow slightly irrorated with brown; a fine brown terminal line; the under side with dark discoidal spot and curved postmedial line.

Hab. **Mashonaland**, Salisbury (Dobbie); **Natal**, Deloni (Stanger), Bushman's River (Hutchinson). *Exp.* ♂ 32, ♀ 36 mill. Type in B.M.

(2a) **TARACHE MIONIDES**, n. sp.

♂. Frontal prominence with central process, corneous wall and plate below it.

Head and thorax white; palpi at tips, sides of frons and bands on tibiae and tarsi fuscous, abdomen white tinged with ochreous. Forewing with the basal area white, the costal and inner areas grey with white striæ representing the subbasal and antemedial lines; the rest of the wing grey suffused with olive-green, especially on disk; a small white lunule at upper angle of cell; a white patch on costa from before middle to near apex constricted at vein 7 and ending truncate on vein 5; postmedial line white from vein 2 to inner margin, incurved to vein 1, then angled outwards; three waved whitish lines on disk before the subterminal series of white spot with black points on them developed into two black spots below apex and one above tornus; cilia brownish. Hindwing white with some brown on termen from apex to vein 2; the under side with small discoidal black spot.

Hab. **Cape Colony**, Deelfontein (Colonel Sloggett). 1 ♂ type. *Exp.* 28 mill.

(2b) **TARACHE DIOPIS**, n. sp.

♂. Antennæ ciliated; frons with long truncate conical prominence with raised rim at extremity; forewing with the costa concave beyond middle.

Head and thorax black-brown; abdomen dark-brown. Forewing red-brown; orbicular a small round white spot with some brown

scales in centre, reniform a small white lunule, the area between and beyond them dark brown; an indistinct pale obliquely curved postmedial line; terminal area rather darker and irrorated with grey; a fine dark terminal line; cilia brownish white. Hindwing uniform dark brown; cilia dark at base, the tips whitish mixed with brown.

Hab. **Transvaal**, Piet Retief (Crawshay). *Exp.* 22 mill.

(10a) **TARACHE LEUCOTRIGONA**, n. sp.

♀. Head black; thorax pinkish white with some black scales on metathorax; palpi white except at tips; pectus white; legs banded black and white; abdomen white dorsally tinged with brown and with fuscous bands. Forewing pinkish white, the costal area more or less completely olive to beyond middle; subbasal line double, from costa to submedian fold; antemedial line double, waved; a hoop-shaped black discoidal mark, in one specimen with its outer side produced above to a point emitting two black streaks; a triangular white postmedial patch on costa, extending to vein 6 and with the waved black postmedial line arising from it, strongly incurved below vein 4, with a band of slate colour on its inner side and the area beyond it slate colour; a waved sinuous whitish subterminal line with patches of black scales on it, and some white irroration beyond it; a terminal series of black striæ; cilia mostly white from middle to above tornus. Hindwing fuscous brown, rather paler towards base; the cilia mostly white; the under side yellowish white with black discoidal lunule, fuscous spot on middle of costa, waved diffused postmedial line and diffused terminal band.

Hab. **Gazaland**, Melsetter (Marshall), 1 ♀ type; **Zululand**, Lower Tugela (Reynolds), 1 ♀; **Natal**, Maritzburg (Burnup), 1 ♀. *Exp.* 30-36 mill.

GENUS **STOMAFRONTIA**, nov.

Type *S. albifasciata*.

Proboscis absent; palpi very short, porrect, not reaching as far as the large frontal prominence which has a corneous plate below it and ends in a rounded corneous process with raised walls and projecting beak above; antennæ of female with long uniseriate serrations; thorax and abdomen smoothly scaled; tibiæ with the spurs moderate. Forewing with the apex produced and acute, the termen obliquely rounded; vein 3 from long before angle of cell; 5 from above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hindwing with veins 3, 4 from angle of cell; 5 rather slight from below

middle of discocellulars; 6, 7 strongly stalked; 8 anastomosing with the cell to two-thirds, then approximated to it to angle, then diverging.

STOMAFRONTIA ALBIFASCIATA, n. sp.

♀. Head and thorax white mixed with pale red-brown; legs tinged with fuscous; abdomen brownish ochreous. Forewing white irrorated with red-brown and suffused with golden æneous except on costal and terminal areas; a white fascia in and beyond cell met by an oblique streak from apex; the veins with slight dark streaks. Hindwing nearly pure white; the under side with the costal area tinged with pale brown.

Hab. Natal, Mooi River. *Exp.* 38 mill. Type in B.M.

(2a) EUBLEMMA TRUNCATA, n. sp.

♂. Forewing with glandular swelling on costa, the apex truncate and the termen obtusely angled at vein 4.

Head and tegulae white; thorax ochreous white; abdomen brown with white segmental lines, ventrally white irrorated with black. Forewing ochreous brown; indistinct short subbasal and waved antemedial lines with black points at costa; an oblique blackish line from middle of costa to lower angle of cell, then brown and nearly erect; a sinuous postmedial line, oblique from costa to vein 4 where it is sharply angled, then inwardly oblique and incurved between veins 3 and 1, some pink and white on inner side of its costal half; apical area darker brown irrorated with pink and with white points on costa, a white and black subterminal line on costal half with a small white spot on its inner side above vein 6 and black patch below it; a subterminal series of slight fuscous lunules on inner half; termen pink. Hindwing pale brownish, the terminal area tinged with fuscous; cilia of both wings white irrorated with fuscous. Under side whitish; forewing with the disk suffused with fuscous, a curved postmedial line, the apical area rufous with white line on it; hindwing irrorated with fuscous, a minutely dentate postmedial line.

Hab. Natal, Durban (Leigh). *Exp.* 18 mill. Type in B.M.

- (3) EUBLEMMA RAGUSANA, Frr. Neu. Beitr. Schmett. v. p. 92 (1844).
 „ *virginea*, Guen. Noct. ii. p. 248 (1852).

Hab. Europe, Dalmatia; West Africa, Nigeria, Gold Coast; British East Africa, Kikuyu; Mashonaland (Dobbie); Natal, Tugela River (Reynolds); Asia Minor; Syria; India; Andamans; Java; New Guinea; Australia. *Exp.* 22 mill.

(17*a*) *EUBLEMMA ECRUFA*, n. sp.

♀. Head and thorax whitish mixed with grey and slightly tinged with ochreous; abdomen ochreous white. Forewing whitish thickly irrorated with fuscous grey; an indistinct oblique dark medial line from cell to vein 1 defined by white on inner side; a slightly oblique sinuous postmedial line defined by white on outer side and almost obsolete except in submedian interspace; subterminal line whitish, oblique, minutely waved, incurved in submedian interspace, defined on inner side by a broad fuscous shade, the area beyond it suffused with rufous; a terminal punctiform black line. Hindwing pale ochreous with some fuscous irroration especially on apical area.

Hab. **Cape Colony**, Deelfontein (Colonel Sloggett). *Exp.* 18 mill. Type in B.M.

HYPENINÆ.(2) *ALELIMMA GRISEA*, n. sp.

♂. Antennæ simple; forelegs normal.

Grey tinged with fuscous. Forewing with indistinct antemedial line angled in submedian fold; a slight discoidal bar; the postmedial line indistinct, angled at vein 4, then strongly incurved; an indistinct terminal series of dark points.

Hab. **Basutoland**, Machacha, 10,000 ft. (Crawshay). *Exp.* 20 mill. Type in B.M.

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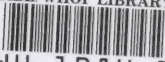
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